

Novell NetWare® 6.5

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README

November 2, 2003



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U.S. Patent No. 5,157,663; 5,349,642; 5,455,932; 5,553,139; 5,553,143; 5,572,528; 5,594,863; 5,608,903; 5,633,931; 5,652,854; 5,671,414; 5,677,851; 5,692,129; 5,701,459; 5,717,912; 5,758,069; 5,758,344; 5,781,724; 5,781,733; 5,784,560; 5,787,439; 5,818,936; 5,828,882; 5,832,274; 5,832,275; 5,832,483; 5,832,487; 5,859,978; 5,870,561; 5,870,739; 5,873,079; 5,878,415; 5,884,304; 5,893,118; 5,903,650; 5,903,720; 5,905,860; 5,910,803; 5,913,025; 5,913,209; 5,915,253; 5,925,108; 5,933,503; 5,933,826; 5,946,002; 5,946,467; 5,956,718; 5,956,745; 5,964,872; 5,974,474; 5,983,223; 5,983,234; 5,987,471; 5,991,810; 6,002,398; 6,014,667; 6,016,499; 6,023,586; 6,029,247; 6,052,724; 6,061,726; 6,061,740; 6,061,743; 6,065,017; 6,081,774; 6,081,814; 6,094,672; 6,098,090; 6,105,062; 6,105,069; 6,105,132; 6,115,039; 6,119,122; 6,144,959; 6,151,688; 6,157,925; 6,167,393; 6,173,289; 6,216,123; 6,219,652; 6,233,859; 6,247,149; 6,269,391; 6,286,010; 6,308,181; 6,314,520; 6,324,670; 6,338,112; 6,345,266; 6,353,898; 6,424,976; 6,466,944; 6,477,583; 6,477,648; 6,484,186; 6,496,865; 6,510,450; 6,516,325; 6,519,610; 6,532,451; 6,532,491; 6,539,381; RE37,178. Patents Pending.

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NetWare 6.5 Readme

October 15, 2003

Online Documentation: To access the online documentation for this and other Novell products, and to get updates, see www.novell.com/documentation.

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About This Guide

This document provides information on known issues for the initial release of NetWare® 6.5. The issues are divided into sections based on product features. Use the Table of Contents or the online Search feature to locate the information you need.

For information about additional issues discovered after the initial release, access the [Novell® KnowledgeBase](http://support.novell.com/search) (<http://support.novell.com/search>) and enter TID# 10084514.

Additional Documentation

For complete information on setting up and using NetWare 6.5, see the [NetWare 6.5 online documentation](http://www.novell.com/documentation/lg/nw65) (<http://www.novell.com/documentation/lg/nw65>).

Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

A trademark symbol (®, ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as UNIX*, should use forward slashes as required by your software.

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General Information

NetWare 6.5 Contents

The NetWare® 6.5 product package includes the following:

- ♦ *NetWare 6.5 CD 1 (Operating System)*
- ♦ *NetWare 6.5 CD 2 (Products)*
- ♦ *NetWare 6.5 Demonstration Kit (Digital Airlines)*
- ♦ *NetWare 6.5 Documentation CD*
- ♦ *NetWare 6.5 License/Cryptography diskette*
- ♦ *NetWare 6.5 Overview and Installation Guide*
- ♦ *NetWare 6.5 Partner CD*
- ♦ *Novell DirXML Starter Pack CD*
- ♦ *Novell Nterprise Branch Office CD*
- ♦ *Novell Clients Software CD*

The CD includes the following:

- ♦ Novell® Client™ 4.9 for Windows* NT*/2000/XP
- ♦ Novell Client 3.4 for Windows 95/98
- ♦ Novell ConsoleOne® 1.3.6 with NetWare 6.5 snap-ins
- ♦ Novell NetDrive Client 4.1
- ♦ Novell Modular Authentication Services (NMASTM) Client 2.2
- ♦ Client NCI 2.6 for Windows
- ♦ exteNd™ Workbench™ 4.1.1
- ♦ exteNd Client 5.0
- ♦ NetIdentity Agent 1.2

Java Runtime License

NetWare 6.5 comes with the Java* 2 Runtime Environment (J2RE) Standard Edition, version 1.4.1_x. This product includes code licensed from RSA Security, Inc. Some portions licensed from IBM* are available at the [International Components for Unicode for Java Web site \(http://oss.software.ibm.com/icu4j\)](http://oss.software.ibm.com/icu4j).

Product Documentation Updates

The documentation on the CD that ships with the NetWare 6.5 package is current as of July 1, 2003. The [NetWare 6.5 online documentation \(http://www.novell.com/documentation/lg/nw65\)](http://www.novell.com/documentation/lg/nw65) is the most current source and will continue to be updated.

Browser Support in NetWare 6.5

We have tested certain platforms and browser versions for the NetWare 6.5 user and administrative interfaces. For detailed information about the browser support included in NetWare 6.5, see the *NetWare 6.5 Administration Overview*.

Additional Information

For information about additional issues discovered after the initial release of NetWare 6.5, see the [Novell KnowledgeBase \(http://support.novell.com/search\)](http://support.novell.com/search) and enter TID# 10084514.

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Interoperability Issues

Novell Products Supported on NetWare 6.5

Upgrades and new installations of the following Novell® products are supported on NetWare® 6.5:

- ♦ DirXML® 1.1a
- ♦ Novell iFolder 2.x
- ♦ GroupWise® 6.0 Support Pack 3

The WebAccess servlet is supported only on an upgrade. Support for the WebAccess servlet on a new installation will be available with GroupWise 6.0 Support Pack 4.

- ♦ GroupWise 6.5 Support Pack 1
- ♦ NetMail™ 3.1
- ♦ Nterprise™ Branch Office™ 1.0
- ♦ SecureLogin 3.0.4
- ♦ ZENworks® for Desktops 4.01/ZENworks for Desktops 4 Support Pack 1

You will need to apply the latest ZENworks for Desktops update in order to have this support. See [the ZENworks for Desktops Readme \(http://www.novell.com/documentation/lg/zdpr/readme/readme-zfd401-nw65update.html\)](http://www.novell.com/documentation/lg/zdpr/readme/readme-zfd401-nw65update.html) for information about obtaining the update and other information about using ZENworks for Desktops with NetWare 6.5.

- ♦ ZENworks for Servers 3.02/ZENworks for Servers 3 Support Pack 2

You will need to apply the latest ZENworks for Servers update in order to have this support. See [the ZENworks for Servers Readme \(http://www.novell.com/documentation/lg/zfs302/readme/readme_zfs302_update_nw65.html\)](http://www.novell.com/documentation/lg/zfs302/readme/readme_zfs302_update_nw65.html) for information about obtaining the update and other information about using ZENworks for Servers with NetWare 6.5.

Novell Products Not Supported on NetWare 6.5

Upgrades and new installations of the following Novell products are not supported with the initial release of NetWare 6.5.

NOTE: Products marked with a double asterisk will be supported on NetWare 6.5 in their next release.

- ♦ BorderManager® 3.7**
- ♦ exteNd™ Director Standard Edition 4.1**
- ♦ GroupWise 5.5
- ♦ GroupWise Snap-ins for ConsoleOne®
- ♦ iChain® 2.1 Support Pack 1**
- ♦ iChain 2.2

- ♦ ManageWise® 2.7
- ♦ ZENworks for Desktops 3.2 Support Pack 2
- ♦ ZENworks for Handhelds 5.1**
- ♦ ZENworks OnDemand Services™ 2.0

Third-Party Issues

For a description of third-party issues with NetWare 6.5, see [Chapter 44, “Third-Party Adapters, Drivers, and Applications,” on page 111.](#)

ZENworks for Desktops Management Agent and NetIdentity Agent Not Compatible

Coexistence of the ZENworks for Desktops Agent and NetIdentity client is not supported in this release. Upgrading to the NetIdentity client from the ZENworks for Desktops Management Agent is also not supported.

The ZENworks for Desktops Management Agent links into the browser installed on the workstation. It also installs supporting files to provide ZENworks for Desktops functionality whether using the MidTier or Novell Client™. When the Agent is installed on the workstation and Internet Explorer is used to access NetIdentity-enabled Web services such as Virtual Office or iManager on NetWare 6.5, the browser will crash during or after authenticating to the Web service.

If ZENworks for Desktops functionality is not needed, you can remove the ZENworks for Desktops Management Agent and install the NetIdentity client from the *Novell Clients Software* CD that ships with NetWare 6.5. This will provide the automatic authentication it was designed for, but at the loss of Workstation Inventory, Application Launcher, etc.

GroupWise WebAccess Installation on NetWare 6.5

The default installation of GroupWise WebAccess on a NetWare 6.5 Web server will result in 404 Web browser errors when trying to log in to GroupWise WebAccess (http://server_address/servlet/webacc) or GroupWise WebPublisher (http://server_address/servlet/webpub).

To resolve this issue:

- 1 Install GroupWise 6.5 WebAccess or GroupWise 6 Support Pack 3 WebAccess.

During the installation, make sure you install the WebAccess Application and the WebPublisher Application (optional) to the Apache directory (sys:\apache2) and the Tomcat4 root directory (sys:\tomcat\4). The Tomcat path should be detected automatically.

- 2 After the installation is complete, open the sys:\tomcat\4\webapps\root\web-inf\web.xml file.

The file contains <servlet> entries for WebAccess (webacc) and Novell Spell Checker (spellchk). If you installed WebPublisher, it also contains a WebPublisher <servlet> entry (webpub).

- 3 Locate the last </servlet> tag, then add the following servlet mapping information between the </servlet> tag and the </web-app> tag:

```
<servlet-mapping>
    <servlet-name>webacc</servlet-name>
    <url-pattern>/servlet/webacc/*</url-pattern>
</servlet-mapping>
<servlet-mapping>
    <servlet-name>spellchk</servlet-name>
    <url-pattern>/servlet/spellchk/*</url-pattern>
</servlet-mapping>
```

- 4** (Conditional) If WebPublisher is installed, also add the following information to the same location noted in **Step 3 on page 8**.

```
<servlet-mapping>
    <servlet-name>webpub</servlet-name>
    <url-pattern>/servlet/webpub/*</url-pattern>
</servlet-mapping>
```

- 5** Save and exit the web.xml file.
- 6** Stop and restart Tomcat4 (or restart the server).
- 7** Make sure the GroupWise WebAccess Agent, Message Transfer Agents, and Post Office Agents are running.
- 8** Log in to GroupWise WebAccess to verify that WebAccess is functioning properly.

NetWare 6.5 Upgrade after GroupWise WebAccess Installation

When you upgrade to NetWare 6.5 on a server where GroupWise WebAccess is installed, the NetWare 6.5 installation program updates the WebAccess configuration files (webacc.cfg, spellchk.cfg, and webpub.cfg) in the novell\webaccess directory at the root of the Web server). It changes Tomcat 3.3 references to Tomcat 4.

For example, it changes references to the Tomcat\33 directory to the Tomcat\4 directory. However, it does not make changes to the WebAccess objects in the eDirectory™ tree because there is no convenient way to determine where the WebAccess objects are located in the tree. Therefore, you must manually change the Tomcat version information on the WebAccess objects.

IMPORTANT: If you do not manually update the Tomcat information on the WebAccess objects and you subsequently edit the WebAccess configuration information in ConsoleOne, ConsoleOne will overwrite the configuration files that were updated by the NetWare 6.5 installation program with obsolete Tomcat information and WebAccess will stop working.

- 1** In ConsoleOne, browse to and right-click the WebAccess Application object (GroupWiseWebAccess), then click Properties.
- 2** Click Application > Templates.
- 3** In the Template Path field, change Tomcat\33 to Tomcat\4, and then click OK.
- 4** Right-click the Speller Application object (NovellSpeller), then click Properties.
- 5** Click Application > Environment.
- 6** In the Template Path field, change Tomcat\33 to Tomcat\4, and then click OK.
- 7** If you have installed WebPublisher, right-click the WebPublisher Application object (GroupWiseWebPublisher), and then click Properties.
- 8** Click Application > Templates.
- 9** In the Template Path field, change Tomcat\33 to Tomcat\4, and then click OK.

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Installation/Upgrade

NOTE: Remote upgrades are not supported in this beta release. This will be resolved before the Support Pack is released.

For complete instructions on installing NetWare® 6.5, see the *NetWare 6.5 Overview and Installation Guide*.

During the Install, Log In without the Leading Dot

If you login with a leading dot (.admin.novell,) during the Support Pack install, some of your plugins will not be upgraded properly. Specifically FTP and NFS admin plugins will not function. To avoid this, login without the leading dot so the plugins will be upgraded properly.

Conditions for Installing NetWare 6.5

The NetWare 6.5 installation is supported only under the following conditions:

- ◆ Install onto a clean, error-free disk drive.

Remove files from any previous installation, then run the SCANDISK or CHKDSK DOS utilities to verify the integrity of the DOS partition.

- ◆ Install a NetWare 6.5 server into a tree that has Novell® eDirectory™ 8 or later.

Installing into a tree with a version earlier than eDirectory 8 can make User objects unmanageable when using management utilities other than those that ship with NetWare 6.5.

- ◆ The server cannot be installed in a tree that contains NetWare 4.10 servers. All servers in the tree must be NetWare 4.11 or later.
- ◆ To ensure that Licensing works properly, all NetWare 4 and 5 servers in your tree must be at the following minimum Support Pack level:

NetWare 4.11 and 4.2 servers—Support Pack 6a or later

NetWare 5.0 servers—Support Pack 4 or later

NetWare 5.1 servers—Support Pack 3 or later

We recommend installing the latest available Support Packs on all NetWare servers in your tree.

- ◆ Before you introduce a NetWare 6.5 server into an existing network, you must run the NetWare Deployment Manager to update the network.

See *Preparing the Network with Deployment Manager* in the *NetWare 6.5 Overview and Installation Guide* for more information.

The NetWare 6.5 Deployment Manager can be run only in an Internet Explorer 5 or 6 browser.

Interoperability with Other Novell Products

For a description of interoperability issues between this release and other Novell products, see [Chapter 2, “Interoperability Issues,” on page 7](#).

Upgrading from NetWare 5.1

Upgrading to NetWare 6.5 from NetWare 5.1 Support Pack 6 and eDirectory version 8.5 is not supported. The minimum eDirectory level required to upgrade to NetWare 6.5 is eDirectory version 8.6.

Upgrading to NetWare 6.5 from NetWare 5.1 running NDS[®] 7 is supported, providing that Deployment Manager is first run to prepare the network for the new NetWare 6.5 server.

Slow File Copy over a WAN Link during a Remote Upgrade

When you run a remote upgrade, if the source files are located on a remote server, that server must contain a DS replica in order for the server-to-server file copy to run efficiently. If a replica does not exist on the source server, the file copy might revert to a workstation copy, which can be significantly slower over a WAN link.

Installing a NetWare 6.5 Server into a Pure NetWare 4.x eDirectory Tree

To install a NetWare 6.5 server into a pure NetWare 4 tree, run the NetWare Deployment Manager utility and follow the directions to copy updated NetWare 4 NDS files to the network, generate GUIDs, and update the schema.

After running the Deployment Manager, but before attempting to install the NetWare 6.5 server, do the following.

NOTE: These steps are necessary only in a pure NetWare 4 tree. If any NetWare 5.1 or NetWare 6.0 servers already exist in the tree, this procedure is not necessary.

- 1** Run DSRepair on a server that holds a writable copy of the Root partition.
- 2** Select Advanced Options Menu > Global Schema Operations.
- 3** Log in as the Admin, if necessary, then run the Post NetWare 5 Schema Update.
- 4** After the Post NetWare 5 Schema Update completes, return to the main menu and select Advanced Options Menu > Repair Local DS Database.
- 5** Set the Rebuild Operational Schema option to Yes.
- 6** Run the local database repair.

Using Updated Files during the Installation

The c:\nwupdate directory structure for NetWare 6.5 mirrors the directory structure of the install image. Updated files should be placed in the c:\nwupdate subdirectory that corresponds to where they are located in the install image.

There are two notable exceptions to this rule:

1. Install scripts (sys_inst.ils, dos_inst.ils, defpre.ils, defcopy.ils, etc.) should be placed in the c:\nwupdate directory.

NOTE: Defpre.ils and defcopy.ils are dummy scripts called from dos_inst.ils (the first C-Worthy copy) and sys_inst.ils (the second C-Worthy copy), respectively, and are intended to be modified for OEM use. These scripts are also used in NetWare 6.0.

2. The subdirectories of the c:\nwupdate\drivers directory (\storage, \lan, \psm, \sbd, \cios) have been eliminated. Their files and subdirectories should be placed in the c:\nwupdate\drivers directory.

There is a blackout period during the install when access to the DOS drives (C:, D:, etc.) is prohibited. This occurs during the time that platform support and storage drivers (PSMs, HAMs, SBDs, and CDMs) are detected and loaded. However, they can be loaded from a floppy disk.

Unable to Log In during Concurrent Installations

If you attempt to install a new server into your tree at the same time you upgrade another server in the tree to NetWare 6.5, you might have difficulty logging in to the server being upgraded until the other server's installation is complete.

NetWare 6.5 Installation with Existing Volumes

If you install NetWare 6.5 on a server with existing NSS or traditional volumes, the install will not create eDirectory objects in the tree for the existing volumes. You must mount the pre-existing volumes, then create an eDirectory object for each volume.

To create an eDirectory object for an NSS volume using iManager:

- 1 Launch iManager on your workstation.
- 2 In the left-hand navigation frame, click the Plus sign (+) next to the Storage heading.
- 3 Click the Volumes link under the Storage heading.

The existing volumes for the server are displayed in the Volume Management frame of the iManager screen.

- 4 Select the volume you want to create an eDirectory object for.
- 5 Click the Mount link in the Volume Management frame of iManager.
- 6 Click the Update eDirectory link in the Volume Management frame of iManager.

To create an eDirectory object for an NSS volume using NSSMU:

- 1 Enter **load nssmu** at the server console.
- 2 Select Volumes, then press Enter.
- 3 Select the Volume that needs to have an eDirectory object created for it.
- 4 To update eDirectory with the new Volume object, press F8 > Alt+F8.

To create an eDirectory object for a traditional volume using NetWare Remote Manager:

- 1 Launch NetWare Remote Manager on your workstation.
- 2 In the left-hand navigation frame, click the Partition Disks link under the Manage Server heading.
- 3 In the right-hand frame of the browser window, locate the volume you want to create.
- 4 Click the Create eDir Object link next to the desired volume.

The Create eDir Object link disappears after the object is created.

Running the Deployment Manager Utilities without a Browser

The Internet Explorer version 5 or 6 browser is required for Deployment Manager to work properly.

If you do not have Internet Explorer installed on the workstation where the Deployment Manager is running, or you do not want to use the ActiveX Control included with Deployment Manager, then search for TID# 10084103 in [the Novell Knowledgebase \(http://support.novell.com/search/kb_index.jsp\)](http://support.novell.com/search/kb_index.jsp) for information about running the Deployment Manager utilities without a browser.

Deployment Manager Disk Space Requirement

In order to run the Deployment Manager, you must have a minimum of 67 MB of disk space for the JRE and Installation files.

If you receive an error stating that `rt.jar` or `ni.jar` is not in your class path, it means the system ran out of disk space. Delete the `c:\program files\common files\novell\jre` and `c:\program files\common files\novell\nis30` directories, recheck your disk space, then run the Deployment Manager again.

Calwin.dll Errors When Running the Deployment Manager

When attempting to run the Deployment Manager, if you receive an error specifying that you need `calwin.dll`, it means that you do not have the Novell Client™ installed. Install the Novell Client, then run the Deployment Manager again.

Remote Installation/Upgrade

After the initial reboot during a remote upgrade, a login screen might display requiring you to log in to the server being upgraded. If this occurs, provide the login information, click Details, type the IP address of the server being upgraded, then click OK.

If Installation/Upgrade tasks fail to run from iManager, you might need to change your security settings.

- 1** In Internet Explorer, click Tools > Internet Options.
- 2** Click Security > Custom Level.
- 3** Under Initialize and Script ActiveX Controls Not Marked as Safe, select Enable.
- 4** Click OK.

WAN Boards Don't Load during a NetWare 6.5 Upgrade

WAN boards don't load after the server reboots following the initial file copy during an upgrade to NetWare 6.5. This is a problem if the server needs the WAN board loaded to complete the upgrade to NetWare 6.5. This occurs with all supported NetWare platforms using WAN boards.

To load the boards manually, enter **reinitialize system** at the server console.

To automatically load the boards during the installation, add `defupgrd.ils` to the `c:\nwupdate` directory of the server being upgraded. `Defupgrd.ils` must contain the Reinitialize System command to load the WAN boards. Add the following text to `defupgrd.ils`:

```
@Fileset
```

```
Description: "Default Upgrade Modules"
```

```
  Name:    DefUpgrade_Files
```

```
  Class:   MANDATORY
```

```
  Bytes:   0
```

```
  DiskBytes: 0
```

```
console 'Reinitialize System', 2  
@EndFileset
```

After the upgrade has completed and the server starts, the WAN boards load normally.

Install Hangs or Problems Browsing the Floppy Drive for Licenses

If the install hangs when the Server Name screen displays, or you are unable to browse the floppy drive during the Encryption or License screens, toggle to the console prompt and enter **Lf volumes Reset**.

Missing Information in the Non-English Documentation

Due to translation deadlines, two installation screens are not documented in the non-English versions of the *NetWare 6.5 Overview and Installation Guide*. The two screens are related to Novell Nsure™ Audit. For English language documentation of these screens, see “**Novell Nsure Audit Starter Pack - Component Selection**” in the *NetWare 6.5 Overview and Installation Guide*.

Incorrect Upgrade Scenarios in the Non-English Documentation

The non-English versions of the *NetWare 6.5 Overview and Installation Guide* contain a statement that indicates upgrades to NetWare 6.5 are supported from NetWare 4.2 and 5.0. These upgrade paths have not been adequately tested and are, therefore, not supported in this release. (The statement has been removed from the English version of the documentation.)

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NetWare Migration Wizard 6.5

For additional issues related to NetWare® Migration Wizard, see the [Readme \(http://www.novell.com/documentation/lg/migwiz65/readme.txt\)](http://www.novell.com/documentation/lg/migwiz65/readme.txt) located with the NetWare Migration Wizard online documentation.

Installing Tomcat and exteNd Application Server after the Migration

After completing a NetWare 6.5 to NetWare 6.5 migration using the Migration Wizard, complete the following steps to ensure that Tomcat installs correctly:

- 1 Copy sys:\sys.mig\java to sys:\java, overwriting all existing files.
- 2 Copy sys:\sys.mig\adminsrv to sys:\adminsrv, overwriting all existing files.
- 3 Copy sys:\sys.mig\system\ipconf to sys:\system\ipconf, overwriting all existing files.

After completing a NetWare 6.5 to NetWare 6.5 migration using the Migration Wizard, complete the following steps to ensure that exteNd™ Application Server installs correctly:

- 1 Copy sys:\sys.mig\java to sys:\java, overwriting all existing files.
- 2 Copy sys:\sys.mig\etc\my.cnf to sys:\etc\my.cnf.

Unable to Copy NDS Object Errors

When migrating a NetWare 6.0 server with eDirectory™ version 8.6.2 to a new NetWare 6.0 server with eDirectory 8.6.2, you might encounter an NDS® error stating you couldn't copy an NDS object because you do not have the proper rights. This can occur even if you are logged in as Admin.

Installing eDirectory version 8.7 on the source server and running the migration again resolves this issue.

Copying Data from a Compressed to an Uncompressed Volume

When using the Migration Wizard to copy data from a compressed volume to an uncompressed volume, or when backing up a compressed volume in uncompressed format, ensure the server has enough space left in the volume to accommodate the uncompressed data.

Decompression requires some disk space to decompress the file and back it up. Having a small amount of space left on the system might result in a server abend or unwanted behavior in the file system.

Installing Native File Access for UNIX after the Migration

After completing a NetWare 5.1 to NetWare 6.5 migration using the Migration Wizard, complete the following steps to ensure that Native File Access for UNIX installs correctly:

- 1 Delete the NFAUUser object.

- 2 Run the schinst utility.

Syntax:

schinst -n -w

SCHINST takes the administrator's FDN and password as input for extending the schema.

- 3 Run nisinst.
- 4 Execute nfsstart.

Installation Quits after Extracting

There are some known issues with Java and certain video cards that cause the Migration Wizard installation to quit after extracting. If you encounter this issue, update your graphics card drivers to the latest version, or disable the hardware acceleration for your graphics card.

CCS_pbeDecrypt Error When Migrating from NetWare 5.0

When performing a migration from NetWare 5.0, you might receive a CCS_pbeDecrypt error on the source server console when attempting to back up either the source server trustees or the NDS database.

If this occurs, make sure that the latest Support Pack is installed on the NetWare 5.0 server and do the following:

- 1 At the NetWare 5.0 source server console, enter **Down**.
- 2 At the DOS prompt, enter **copy c:\nwserver\expeng.xml noveng.xml**.
- 3 Enter copy **c:\nwserver\domeng.xml noveng.xml**.

NOTE: This might fail because domeng.xml is not present. This is not a problem.

If you used a directory other than \nwserver to store the server files, substitute that directory for *nwserver* in steps 2 and 3.

- 4 Restart the NetWare 5.0 server.

5

Server Consolidation Utility

For additional issues related to the Novell® Server Consolidation Utility, see the Readme located with the [Novell Server Consolidation online documentation \(http://www.novell.com/documentation/lg/servercon20\)](http://www.novell.com/documentation/lg/servercon20).

The Compare Feature Shows Attributes Are Different

When a Read-only file is copied with the Novell Client™, the Rename Inhibit (RI) and Delete Inhibit (DI) attributes should be automatically set, but the latest version of the Novell Client (4.90) does not set the RI or DI attribute.

The Server Consolidation Utility, as expected, does set the RI and DI attributes when copying a Read-only file. However, if you choose to have the Server Consolidation Utility perform a file compare between the source and destination files after the consolidation completes, the log file will show that the source and destination attributes are different. This is because the source file is marked Read-only and the RI and DI attributes are not set, but the files on the destination server had the RI and DI attributes set by the Server Consolidation utility.

Although the Novell Client version 4.90 does not properly set the RI and DI attributes at this time, the Server Consolidation and NetWare Copy utilities do. To access the NetWare® Copy utility, right click the red N in the system tray of your workstation, and then click NetWare Utilities > NetWare Copy.

Copying Data from a Compressed to an Uncompressed Volume

When using the Server Consolidation Utility to copy data from a compressed volume to an uncompressed volume, ensure the server has enough space left in the volume to accommodate the uncompressed data.

Decompression requires some disk space to decompress the file and back it up. Having a small amount of space left on the system might result in a server abend or unwanted behavior in the file system.

Installation Quits after Extracting

There are some known issues with Java and certain video cards that cause the Server Consolidation Utility installation to quit after extracting. If you encounter this issue, update your graphic card drivers to the latest version, or disable the hardware acceleration for your graphics card.

Last Accessed Date Errors in the Log File

When you choose to have the Server Consolidation Utility perform a file compare after the copy process completes, it might report "Last Accessed Date" errors in the log file.

For example, if the source file has a Last Accessed Date of June 10, 2003, and that file is copied to a destination server on June 15, 2003, the file on the destination server retains the source file's Last Accessed Date of June 10, 2003. However, the source file's date is changed, after the copy

completes, to June 15, 2003. This is caused by Novell SMS™ accessing the source file when it backs up the file during the consolidation process. When the Server Consolidation Utility proceeds to compare the file attributes, it flags an error because the Last Accessed Date has changed on the source.

The destination file is correct, only the source file's attribute is changed. This issue can also occur with the destination file's attribute.

This occurs on all files, traditional and compressed, copied from NetWare 4.x or NetWare 5.0 source servers. It also occurs on fully patched NetWare 5.1 and NetWare 6.0 source servers, but only with compressed files, not traditional files.

6

Apache Web Server on NetWare

Remote Upgrades

If during a remote upgrade you accept the defaults for the LDAP server (specifically, Require TLS for Simple Binds), the Apache2 Admin Server will not get configured properly.

There are three ways to resolve this issue:

1. Uncheck the Require TLS for Simple Binds check box during installation.
2. Give administrative rights to additional users by adding their User objects to the apchadmn-Administrators group.
3. Run a local post-install of the Apache2 Admin Server from the server GUI; the configuration issues will be fixed automatically.

When Upgrading a Server Running Apache Web Server 1.03

When upgrading a NetWare[®] server that is running Apache 1.03, NetWare 6.5 disables version 1.03. As long as Apache 2.0 is selected during the install, the install transitions Novell[®] software that is dependent on Apache to use Apache 2.0.

If you have other programs configured to use Apache 1.03, we recommend that you reconfigure them to use Apache 2.

7

Beans for Novell Services

Beans Included

The following Beans for Novell® Services are included with NetWare® 6.5. Additional Readme information is located on the [Novell Developer Web site \(http://developer.novell.com\)](http://developer.novell.com).

- ♦ [LDAP Beans \(http://developer.novell.com/ndk/readme/bns_ldap.html\)](http://developer.novell.com/ndk/readme/bns_ldap.html)
- ♦ [LDAP Command Beans \(http://developer.novell.com/ndk/readme/bns_ldapcmd.html\)](http://developer.novell.com/ndk/readme/bns_ldapcmd.html)
- ♦ [Novell Nsure™ UDDI Command Beans \(http://developer.novell.com/ndk/readme/bns_uddicmd.html\)](http://developer.novell.com/ndk/readme/bns_uddicmd.html)
- ♦ [SecretStore Command Beans \(http://developer.novell.com/ndk/readme/bns_sscmd.html\)](http://developer.novell.com/ndk/readme/bns_sscmd.html)
- ♦ [Security Command Beans \(http://developer.novell.com/ndk/readme/bns_seccmd.html\)](http://developer.novell.com/ndk/readme/bns_seccmd.html)
- ♦ [WebDAV Command Beans \(http://developer.novell.com/ndk/readme/bns_wdavcmd.html\)](http://developer.novell.com/ndk/readme/bns_wdavcmd.html)

Samples for Novell LDAP Command Beans and Security Command Beans

- ♦ The JSP samples for Novell LDAP Command Beans and Security Command Beans are shipped with the respective Beans. These samples can be accessed from the server welcome page. The samples have a dependency on Apache and Tomcat and, therefore, can be configured automatically only if the Apache or Tomcat pattern is selected during the NetWare server install.

In all other cases, install Apache and Tomcat, do one of the following, and then restart Apache and Tomcat:

- ♦ Perform a post install for Beans for Novell Services.
- ♦ Include the following line at the end of httpd.conf (Apache configuration file):

Include sys:/tomcat/4/conf/beans-apache.conf

To access samples, do one of the following:

- ♦ Go to the NetWare server welcome page, then click J2EE / Web Services > Beans for Novell Services.
- ♦ In a browser, go to <http://server/ecb/index.html>, where *server* is the DNS name or IP address of the NetWare 6.5 server.

8

ConsoleOne 1.3.6

Using ConsoleOne to Manage NetWare 4 Servers

In order to use ConsoleOne® to manage a tree containing NetWare® 4 servers (NDS® v 6.17), IPX™ must be installed on the management client. Even if ConsoleOne is run from a NetWare box via a mapped drive on the client, the client machine that ConsoleOne is running on must be able to connect natively via IPX.

ConsoleOne Installation during a Remote Upgrade

ConsoleOne 1.3.6 might fail to install on the server during a remote upgrade using nwdeploy.exe. If this happens, use any of the post-install methods to install ConsoleOne on the server.

Menu Keyboard Navigation Indicators Are Not Displayed

When running ConsoleOne on some versions of Windows, the accelerator key indicators for menu items might not be displayed. This is due to a defect in the Sun* JRE 1.4.1_01 that ConsoleOne uses when running on the Windows platform. To resolve this, configure Windows, in the Display Control Panel, to not hide keyboard navigation indicators.

Using the Alt Key to Enter International Characters

Using the Alt+number keys to type international characters when naming objects in ConsoleOne causes the characters to display incorrectly. The workaround for this is to use an international keyboard or to copy the extended characters from Notepad or another Windows application into the ConsoleOne text field. Manually upgrading your JRE to version 1.4.1_02 will also fix this problem.

Novell Client Versions Required for ConsoleOne 1.3.6

ConsoleOne errors might be encountered during authentication and password modification operations when running on a Windows workstation with an older version of the Novell Client™ software. ConsoleOne 1.3.6 on Windows requires one of the following:

- ♦ Novell Client for Windows 95/98 version 3.4 or later
- ♦ Novell Client for Windows NT/2000/XP version 4.9 or later

9

DirXML Starter Pack

Authentication Problems during Installation

If you experience authentication problems during the installation, and if you are certain your authentication information is correct, you should ensure that the NCP™ packet signature level is not set to 3. If the parameter value is set to 3, you will see a -864 error in DSTrace. You should set the value to 1, reboot your computer, run the installation program, then set the value back to 3 to maintain the same security level.

NCP packet signatures determine the level of enhanced security support. Enhanced security includes the use of a message digest algorithm and a per-connection/per-request session state. The values are as follows:

0 = disabled

1 = enabled

2 = preferred

3 = required

Setting this parameter to 2 or 3 increases security, but decreases performance.

Installation from a Non-CD Source

When you use NWCONFIG and run the installation program from a non-CD source, you must use an 8.3 file naming convention. If the installation directory path contains a long name, the path gets truncated and you might encounter any of the following symptoms during installation: failure to open source files, failure to extend the schema, or failure to update the ConsoleOne® snap-ins.

To resolve this, you should change the directory pathname to an 8.3 file format (for example, from `sys:install\dxl_starter_pack` to `sys:install\dirxmlsp`)

Exporting Driver Configurations

Exporting a driver's or driver set's configuration preserves all of its rules, style sheets, and parameter settings in a single XML file that can be imported if driver restoration is necessary or if the current configuration represents the best starting point for a future configuration. Depending on the amount of configuration information associated with a driver or driver set, this process can take several minutes or longer. Also, drivers with large schema definitions might also take several minutes to export.

If you click Finish and close the Export Wizard before you have clicked Save As or copied the XML text, then all export information, including any prompt strings you entered, is lost.

10 DNS/DHCP

Known Issues

- ♦ While upgrading to NetWare® 6.5, if the load named command is in the existing autoexec.ncf file with any option that is not supported by NetWare 6.5, the DNS Server will not load automatically when the autoexec.ncf is executed after you upgrade to NetWare 6.5.

If you have an unsupported option in the autoexec.ncf file, the usage details will be displayed on the logger screen.

In order to avoid this, before upgrading to NetWare 6.5, ensure that the autoexec.ncf file does not contain the -m, -u, -l, -r, -f, -a, -b, -pc, -strict [on|off], -s, -v, or -q option.

For information on DNS Server options, see “Named Command Line Options” in the *Novell DNS/DHCP Services Administration Guide for NetWare 6.5*.

- ♦ The ICE Zone Handler utility does not add the Group object as a trustee to the Zone objects that it creates. If the zones are created using ICE Zone Handler in a different partition where there is no replica available locally for the DNS Server, the server cannot load the zones. You must manually add the Group object (DNSDHCP-GROUP) as a trustee to such Zone objects for the server to load the zones.
- ♦ For dynamic updates from Novell® DHCP servers, the targeted forward zone and its corresponding reverse zone should be serviced by the same DNS Server in Designated Primary mode. This is to ensure that the DNS Server is authoritative for both the forward and reverse zones.

11

eGuide 2.1.2

For Novell® eGuide 2.1.2 issues, see the [Readme \(http://www.novell.com/documentation/lg/eguide212/readme/eguide_readme.html\)](http://www.novell.com/documentation/lg/eguide212/readme/eguide_readme.html) located with the [Novell eGuide 2.1.2 online documentation \(http://www.novell.com/documentation/lg/eguide212/index.html\)](http://www.novell.com/documentation/lg/eguide212/index.html).

12 exteNd Application Server

For complete information on using the Novell® exteNd™ Application Server, see the online help included with the software or the [exteNd Application Server 5.0 online documentation \(http://www.novell.com/documentation/lg/extendas50\)](http://www.novell.com/documentation/lg/extendas50).

Performance Considerations with Console Output

The console screen for the Novell exteNd Application Server displays when you select exteNd Application Server from the Current Screens list on the NetWare® system console. Displaying the application server's console reduces performance as messages are written to the screen. To optimize performance, keep the application server's console closed as much as possible; in other words, as soon as you're finished using it to investigate a message or problem, press Ctrl+Esc to exit (and return to the Current Screens list).

To improve performance on those occasions when you need to display the application server's console, use the Server Management Console (SMC) to turn off any messages you don't require.

If significant output is going to the application server's console, the steps above might not be adequate to ensure good performance. You might need to direct that output to the NetWare Logger Screen instead of the application server's console. To do this, use the `-nomonitor` option when you start `silverserver`.

Heap Size and Application Server Performance

If you experience response-time problems, you might need to increase the memory heap size for the Novell exteNd Application Server. This can occur in the following situations:

- ♦ A large number of the browser clients are connected (this number varies depending on your application and hardware configuration)
- ♦ The application requires more memory to run

The default heap size is 256 MB (shown as 335544320 for the reserved heap). Slow or no response for the application server occurs when the committed heap grows to over 250 MB and is not released. If the committed heap continually stays over 250 MB, then a larger heap is required.

To view the heap size, use the `java -showmemory<id>` command. To increase the heap size, restart the application server with the new size specified on the command line. For example:

```
silverserver +Xmx400M
```

Restarting the Novell exteNd Application Server from the SMC

With NetWare 6.5, when you use the Restart button in the SMC, the application server shuts down but doesn't start up again. In this case, you need to restart the application server manually from the NetWare console; use the `silverserver` command and include any startup options that you normally run the application server with.

Setting the Maximum Number of Client Connections in SMC (Connection Tab)

Make sure that the maximum number of client connections is set appropriately for your machine and its RAM. Each client results in the creation of a Java thread. By default, each thread is allocated a stack size of 262,144 bytes (256k bytes). Each stack is created in physical RAM memory.

For example, if the number of clients is specified at 250, then the amount of physical memory required when the exteNd Application Server is active is 65,536,000 bytes (62.5 MB). The formula in bytes is $256 \times 1024 \times \text{number of clients}$.

You also need to consider the value for dynamically allocated client connections, which the system requires to be equal to or greater than the maximum number of client connections. The potential number of active threads can be this number. Therefore, the amount of physical memory potentially used for the stack space should be based off this number.

The number of active threads is always at least the maximum number of client connections specified. The number of active threads can grow to the number of dynamically allocated client connections.

Setting the maximum number of client connections higher than needed uses extra physical memory. This doesn't happen with the setting for dynamically allocated client connections (because threads are not allocated unless used).

When the Java Virtual Machine (JVM*) allocates a new thread and physical memory is not available for thread creation, then the JVM aborts the application and returns a -4 (out of memory) error. The application server will not run when there is not enough physical memory available to allocate threads.

If the number of clients specified is too high and the application server won't start (because of the failure to allocate physical memory), the solution is to reinitialize the database. The configuration parameters are stored in the database during the initialization process. The SilverInit.ncf command file is provided to reinitialize the system.

Limitation on Upgrades from NetWare 5.1

Upgrading from NetWare 5.1 won't succeed because of problems installing MySQL* (which is required by the application server). In this scenario, MySQL is installed on the traditional file system volume sys:, but it works only on an NSS volume. As a result, both MySQL and the application server fail. For more information, see “When Upgrading from NetWare 5.1 and Installing MySQL and the Novell exteNd Application Server” in [Chapter 17, “MySQL for NetWare,” on page 45](#).

Preparing to Use a Remote MySQL Database as SilverMaster

The application server installation on NetWare asks you to specify a database to be used as SilverMaster (which will contain the application server's system information). You can specify a remote MySQL database, if appropriate, but you must first make sure that database is properly configured.

The application server installation automatically takes care of that configuration when the target MySQL database is on the local machine or on a remote machine in the same application server cluster. For any other remote MySQL database, you must perform the following configuration steps manually.

- 1 On the remote MySQL server, edit `sys:/etc/my.cnf` (the path is different on Windows and Linux*).

1a Add the following lines:

```
innodb_data_file_path=ibdata1:10M:autoextend
innodb_mirrored_log_groups=1
innodb_log_files_in_group=2
innodb_log_file_size=5M
innodb_log_buffer_size=1M
innodb_flush_log_at_trx_commit=0
innodb_log_archive=0
innodb_buffer_pool_size=8M
innodb_additional_mem_pool_size=1M
innodb_file_io_threads=4
innodb_lock_wait_timeout=50
```

1b Make `key_buffer` at least 16 MB.

1c Make `max_allowed_packet` at least 5 MB.

1d Comment out `skip-innodb` (change it to `#skip-innodb`).

2 Restart MySQL.

3 Execute the following commands at the remote MySQL server (replacing *password* with a password of your choice):

3a `create database SilverMaster50`

3b `use SilverMaster50`

3c `grant all on SilverMaster50.* to appserver@'%' identified by 'password'`

3d `grant all on SilverMaster50.* to appserver@localhost identified by 'password'`

3e `create database jBrokerMQ`

3f `use jBrokerMQ`

3g `grant all on jBrokerMQ.* to appserver@'%' identified by 'password'`

3h `grant all on jBrokerMQ.* to appserver@localhost identified by 'password'`

4 Proceed with the installation of the application server on NetWare.

When prompted, specify the remote MySQL hostname and make sure Execute SilverMasterInit is checked.

Downloading SilverJ2EEClient from the Application Server

SilverJ2EEClient is the J2EE* application client container for the Novell exteNd Application Server. To install SilverJ2EEClient on a client machine, you can download the appropriate SilverJ2EEClient installer from the application server. If your application server is running on NetWare, you should sidestep Apache (default port 80) for this download and specify port 83 in the download URL to access the application server directly. This ensures an efficient download (by avoiding a memory usage issue that currently exists in the application server's Apache WSI module).

Here are the resulting download URLs to use for the SilverJ2EEClient installer (depending on your target client machine):

- ♦ Windows client:

`http://servername:83/SilverStream/SilverJ2EEClientInstall/SilverJ2EEClientInstall.exe`

NOTE: In some cases, Internet Explorer might strip the .exe extension from this filename when saving it. If so, you will need to add .exe to the filename yourself.

- ♦ Solaris* client:

`http://servername:83/SilverStream/SilverJ2EEClientInstall/
SilverJ2EEClientInstallSolaris.sh`

- ♦ Linux client:

`http://servername:83/SilverStream/SilverJ2EEClientInstall/SilverJ2EEClientInstallLinux.sh`

Updating jBroker MQ Configuration after SilverMasterInit

If you execute SilverMasterInit and specify a new password (different from the one you used when installing the application server), that new password is not automatically added to the jBroker MQ configuration file. Edit the following file and set msgsvc.jdbc.password to your new password:

`sys:\extend\appserver\jbrokeMQ\lib\msgsvc.properties`

Port Conflict for jBroker MQ Configuration

The port number in the jBroker MQ configuration file is not managed by the IP Address Management framework. If there's a conflict with port 3506, edit the following file and set the port number manually:

`sys:\extend\appserver\jbrokeMQ\lib\msgsvc.properties`

13 **exteNd Workbench**

For complete information on using Novell® exteNd™ Workbench™, see the online help available with the software or the [exteNd Workbench 4.1.1 online documentation \(http://www.novell.com/documentation/lg/workbench41/index.html\)](http://www.novell.com/documentation/lg/workbench41/index.html).

14 iManager

For Novell® iManager issues, see the [Readme \(http://www.novell.com/documentation/lg/imanager20/readme/imanager_readme201.html\)](http://www.novell.com/documentation/lg/imanager20/readme/imanager_readme201.html) included with the Novell iManager online documentation (<http://www.novell.com/documentation/lg/imanager20/index.html>).

15 IP Address Management

Uninitializing httpstk.nlm

When httpstk.nlm is unloaded at the server console, ipmcfg.nlm is not uninitialized.

Hosts and Hostname File

If etc/hostname file does not contain DNS name, then etc/hosts and etc/hostname have to be updated manually for any IP Address change.

16 iSCSI for NetWare

Known Issues

- ♦ After executing the LIST DEVICES command at the server console, there might be a delay before the device list is displayed.
- ♦ Occasional slow performance or dropped iSCSI connection problems might occur with certain router, switch, and hub configurations.

These network configurations might require that SACK (Selective ACK) be turned off for the TCP/IP stack running on the initiator. You can do this at the NetWare[®] server console by entering

```
set tcp sack option=off
```


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MySQL for NetWare

MySQL Options Screen Does Not Display during Installation

If you cancel the installation of MySQL after its files have already been copied to the server and then attempt to install MySQL again, the MySQL Options screen that normally appears during installation will not be displayed. This is because when the files were copied during the first installation attempt, the default `volume:\etc\my.cnf` configuration file was also copied. When the install finds this file on the second attempt, it assumes MySQL was previously installed and so it does not display the MySQL Options screen.

To resolve this issue, delete the `my.cnf` file before you attempt to install MySQL again.

When Upgrading from NetWare 5.1 and Installing MySQL

When upgrading from NetWare® 5.1 and installing MySQL, a message appears indicating that MySQL cannot run on a traditional volume. Because NSS volumes are not mounted or created during an upgrade, perform the following steps to configure MySQL:

- 1 After first upgrading your NetWare 5.1 server to a NetWare 6.5 server, create an NSS volume or upgrade existing NSS volumes.
 - ♦ To create a new NSS volume, use the NSS Management Utility, and enter **nssmu** at the system console.
 - ♦ To upgrade an existing NSS volume, enter **nss /z lssvolumeupgrade=all** at the system console.

- 2 Edit `sys:\etc\my.cnf` by entering the correct volume and path to the MySQL data directory.

For example:

```
datadir=nssvol:/mysql/data
```

- 3 At the NetWare console, enter

```
mysql_install_db
```

```
mysqld_safe
```

```
perl sys:\mysql\scripts\mysql_secure_installation.pl
```

The last command runs the `mysql_secure_installation.pl` Perl script, which lets you configure security for MySQL.

- 4 **If Novell exteNd Application Server was installed:** Configure the Novell exteNd Application Server by entering the following at the system console:

```
load silverinit appserverpassword adminpassword  
mysqlrootpassword
```

Each of these passwords is explained in the `sys:\exteNd\AppServer\bin\silverinit.ncf` file.

Username and Password When Using phpMyAdmin

When you access phpMyAdmin from the Web Manager home page (on port 2200), you are prompted for a username and password. The username and password being requested are the MySQL username and password set during install.

Using MySQLhotcopy

- ♦ The -s --socket option does not work. This option is UNIX specific.
- ♦ Because the MySQLhotcopy on NetWare uses the Perl file::copy method for copying, the --method option is not applicable.

Unload MySQL before Rebuilding NSS Volumes

If you need to rebuild an NSS volume where MySQL is installed and running, unload MySQL before doing so.

For more information about NSS pools and volumes, see **Managing NSS Pools and Volumes** in the *Novell Storage Services Administration Guide for NetWare 6.5*.

Legal Issues

For important legal issues related to your use of MySQL 4.0, refer to the sys:\mysql\license.doc file after installation.

MySQL Documentation

- ♦ The documentation shipped is for MySQL version 4.0.15 although NetWare 6.5 Support Pack 1 beta ships MySQL version 4.0.16.
- ♦ To access the official MySQL documentation, visit <http://www.mysql.com/doc> (<http://www.mysql.com/doc>).

18

NetWare FTP Server

Data Transfer Issues

- ♦ NetWare® FTP Server does not support FTP operations for files larger than 4 GB.
- ♦ FTP operations such as directory listing and size commands for files larger than 2 GB display size in negative values, such as -1. You can ignore these file sizes.

Using FTP Server iManager Snap-ins

- ♦ You cannot administer FTP using iManager if iManager is installed on a different tree.
- ♦ The FTP Server iManager snap-in does not work in the NetWare Remote Manager browser.

Localization Issues

- ♦ When using FTP Server on a Japanese language machine, users might not be placed in their home directories.

To resolve this, replace backslashes (\) with forward slashes (/) as path separators in the user's home directory path. In ConsoleOne®, right-click User and then click Properties > General > Environment > Modify.

- ♦ If you create a file or directory in a DOS name space on a server with double-byte characters, the file or directory is created on that server with the name specified. However, the message to the FTP client might contain a different file or directory name. This happens in particular with the 0x8374 character in Shift_JIS, 30D5 in Unicode*, which is converted to 0x8354 in Shift_JIS, 30B5.

19

NetWare Web Search Server

Web Search Synchronization Can Cause Not_Logged_In Connections to Keep Growing

By default, Web Search requires administrator authentication when processing Synchronization requests. However, the initial release of NetWare® 6.5 does not release the Not_Logged_In connections that appear in the Connections link in NetWare Remote Manager (NRM).

To resolve this issue, open NRM and click Clear All Not Logged In Connections to clear them. Alternatively, set the Require Admin Authorization When Receiving Cluster Data option in the Global Synchronization Settings page of Web Search Manager to No.

Duplicate Indexes

When using Web Search's new Synchronization feature, a duplicate index could be created in the indexes list. In turn, this causes duplicate hits to appear on the search results page.

To resolve this issue, delete one of the duplicate index entries using Web Search Manager.

Authentication Methods for Rights-Based Searches

In prior releases of Web Search, the basic authentication method was used for getting users' credentials when performing rights-based searches. This method depended on a user's own Web browser login dialog box.

Web Search for NetWare 6.5 continues to support this legacy authentication method for logging in. However, when using this method, the logout feature does not work.

Web Search's new mechanism for getting user credentials is formbased. This means that administrators have complete control over the appearance and behavior of the login fields. We strongly recommend modifying any existing templates that still depend on the legacy authentication method to use the new form-based login method. For an example of how to do this, see the SignIn.html template.

An alternative solution is to use a shorter auto-logout time in the security settings of Web Search Manager.

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Novell Certificate Server

For Certificate Server information, refer to the [Security Services Readme \(http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html\)](http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html) located with the Certificate Server 2.6 online documentation (<http://www.novell.com/documentation/beta/crt26>).

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Novell Client for Windows

For issues related to the Novell® Client™ for Windows 95/98 and Novell Client for Windows NT/2000/XP, see the [Readme \(http://www.novell.com/documentation/lg/noclienu/index.html\)](http://www.novell.com/documentation/lg/noclienu/index.html) located with the Novell Client online documentation.

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Novell Cluster Services

For detailed information on configuring different products and components with Novell® Cluster Services™, see the *Novell Cluster Services 1.7 Resource Configuration Guide*.

Directory Tree Not Visible during Installation

When running the Cluster Services installation, you occasionally might be unable to see the Novell eDirectory™ tree you want to install into from the installation browser. If this happens, enter the name of the tree in the browser address (URL) field: *treename/cluster.context*.

Cluster Node Fails to Auto-Start after Installation

If Cluster Services (clstrlib.nlm) does not automatically start on a node immediately after installation, start it manually by entering the ldncs command at the server console.

Upgrade Does Not Upgrade Licenses

If you are performing a rolling cluster upgrade from NetWare® 6.0 to NetWare 6.5, you must manually apply new licenses for any additional nodes in your cluster beyond the first two nodes.

NCP Connection Required prior to Installing Novell Cluster Services

Prior to running nwdeploy.exe, you must have a client connection established from the workstation running the Novell Deployment Manager to each server where Novell Cluster Services will be installed or upgraded.

The easiest way to do this is to use Windows Explorer to browse the eDirectory tree to the sys: volume of each server in your cluster to be upgraded or installed. Opening the sys: volume folder on a server automatically creates a connection to that server.

ConsoleOne Required to Create Home Directories on Virtual Servers

Home directories currently cannot be created on cluster-enabled volumes using iManager. You must use ConsoleOne® to create home directories on cluster-enabled volumes (virtual servers).

Disregard Warning Message after Installing Licenses during Cluster Upgrade

During a server upgrade, a warning message appears indicating that Cluster Services licenses must be installed before upgrading the server. This message is valid if no licenses are installed, but it continues to appear even after installing cluster node licenses. Disregard the message after installing the appropriate licenses.

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Novell eDirectory 8.7.3 for NetWare

For Novell® eDirectory™ 8.7.3 for NetWare® information, refer to the [Readme \(http://www.novell.com/documentation/beta/edir873/readme/nwreadme.txt\)](http://www.novell.com/documentation/beta/edir873/readme/nwreadme.txt) located with the eDirectory 8.7.3 online documentation (<http://www.novell.com/documentation/beta/edir873/index.html>).

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Novell iFolder 2.1

For Novell® iFolder® 2.1 issues, see the Readme located with the [Novell iFolder online documentation](http://www.novell.com/documentation/lg/ifolder21/index.html) (<http://www.novell.com/documentation/lg/ifolder21/index.html>).

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Novell International Cryptographic Infrastructure (NICI)

For NICI information, refer to the [Security Services Readme \(http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html\)](http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html) located with the NICI 2.6.x online documentation (<http://www.novell.com/documentation/beta/nici20>).

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Novell IPv6

Apache2 for IPv6

To use Apache2 for IPv6, copy the winsock NLM™ files from sys:\research\ipv6\winsock to c:\nwserver. Also copy the folders and NLM files from sys:\research\ipv6\apache2 to sys:\apache2.

Deleting Boards

If there are multiple boards of the same type, removing one board might result in unbinding IPv6 addresses from all of the boards. This is because the driver unloads and reloads when a board is deleted.

Range Checking

Range checking for the variables in ip6.cfg and rtadvd.cfg is not yet implemented.

Memory Leakage

On every unload and reload of the IPv6 stack, 728 resources of 4 KB will not be freed and will remain in memory unless the machine is rebooted.

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Novell JVM for NetWare

Changes to the Taskbar Menu

Changes you make to the Novell® JVM for NetWare® GUI do not immediately appear on the taskbar menu. You must close and restart the GUI in order for the changes to take effect. To close the JVM GUI, click Novell > Close GUI. To restart the GUI, use the startx console command.

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Novell Licensing Services

Installing Server Licenses

The server license certificate can be installed in multiple containers of a Novell® eDirectory™ tree, but the license certificate can be installed only once in the same container.

The server license will support up to 1,000 servers installed in any given container or below.

29 Novell Modular Authentication Service (NMAS)

For NMAS information, refer to the [Security Services Readme \(http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html\)](http://www.novell.com/documentation/lg/nmas23/readme/security_readme.html) located with the NMAS 2.3 online documentation (<http://www.novell.com/documentation/beta/nmas23>).

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Novell Native File Access Protocols

The Novell® Native File Access Protocols issues are divided into the following sections:

- ♦ “General Issues” on page 71
- ♦ “Macintosh/AFP Issues” on page 71
- ♦ “Windows/CIFS Issues” on page 73
- ♦ “UNIX/NFS Issues” on page 74

General Issues

CIFS, AFP, and NFS Protocols Installed by Default

The CIFS, AFP, and NFS protocols are installed by default when you install NetWare® 6.5.

Disabling the Software

To disable CIFS and AFP, see “Enabling and Disabling CIFS and AFP” in the *NetWare 6.5 Native File Access Protocols Guide*.

To disable NFS, complete the following steps on each server running NFS:

- 1 Run `nfsstop` at the server console.
- 2 Remove the `NFSSTART` line from the `autoexec.ncf` file.

Nmas.dll Could Not Initialize Cryptographic Services (-1461)

If any of the following errors appears when launching ConsoleOne®, you need to install NICI Client 2.6 or later on the administrator workstation:

`NMAS.DLL could not initialize cryptographic services or cryptographic services are not available. (-1461)`

`NMAS.DLL is unloading b/c of errors during initialization.`

`The library NMASWrap could not be located.`

Macintosh/AFP Issues

Three Grace Logins Required on Universal Password Expiration

If you set a password expiration date using Universal Password, you should notify Macintosh* users that three grace logins are required to change a password. If users wait until the final grace login, they will be denied access to the network and the password will expire.

When Macintosh users are notified that they need to change their password, they will need three grace logins in order to log in and change the password. Two grace logins are required for the

Macintosh interface (the user logs in once, then logs out, then logs in again to change the password). In addition, there is currently a counting problem. When there is one grace login left, the user is not able to log in. This issue will be resolved in NetWare 6.5 Support Pack 1.

AppleTalk Not Supported As a Transport Protocol

Older Macintosh applications that have unique dependencies upon AppleTalk* as a transport protocol must be updated to a version that is known to work over TCP/IP. The AppleTalk stack protocols (TLAP, ELAP, LLAP, DDP, RTMP, AEP, ATP, NBP, ADSP, ZIP, ASP, and PAP) are not supported over TCP/IP by Apple*.

Therefore, we do not support those legacy protocols. Both Novell and Apple have embraced TCP/IP as the Internet standard transport protocol.

IMPORTANT: Older NetWare for Macintosh and Prosoft versions of `afp.nlm` and `appletlk.nlm` are not supported. Do not attempt to mix old Macintosh NLM™ programs with the new `afptcp.nlm`.

Mac OS 8.x Will Not Mount Volumes Checked to Mount at Startup

Mac OS 8.x will not mount volumes checked to mount at startup. To resolve this, add the server volume's alias to the StartUp Items folder inside the System Folder on the Macintosh's local startup disk.

Unloading `Afptcp.nlm` and `Wspdsi.nlm` Programs

The Winsock component used by the Macintosh Native File Access NLM program does not always clean up all open sockets. If you unload `afptcp.nlm` and then explicitly unload `wspdsi.nlm`, you might get the following warning in flashing red text:

WARNING!!!

```
1 active Winsock 2 DSI socket session(s)
```

```
Unloading WSPDSI.NLM with active session(s) will abend the server.
```

```
Unload all Winsock 2 apps with active SSL socket session(s).
```

```
Unload module anyway?
```

The warning is correct. WSPDSI assumes there are still active AFP sessions and it will abend the server if you unload it.

There is no need to unload WSPDSI manually. `Afptcp.nlm` loads it automatically on startup and `afpstop.ncf` does not unload it. It remains loaded. Under normal use, you should not see this warning.

Traditional Volume Access Not Supported

Native File Access for Macintosh is supported only on NSS volumes. Traditional volumes are not available to Macintosh users.

Do Not Use File or Folder Names Longer Than 98 Characters

Any folder that contains a file or folder name that is longer than 98 characters will cause the enumeration of that folder to fail, and the contents of that folder will not be displayed.

Windows/CIFS Issues

Workstations Might Not Be Able to Access a Windows 2000 Primary Domain Controller

If the Primary Domain Controller (PDC) is a Windows 2000 server, Windows workstations might not be able to access the CIFS server.

To fix this using iManager:

- 1 In a Web browser, enter the following in the address (URL) field:

`http://server's_IP_address/nps/iManager.html`

For example:

`http://123.45.115.150/nps/iManager.html`

- 2 At the login prompt, enter the server administrator username and password.
- 3 In the left frame, click File Protocols > CIFS/AFP.
- 4 Type the NetWare server name where CIFS is running, or browse and select one.
- 5 Click Properties > CIFS Authentication.
- 6 Ensure that the Mode is set to Domain and that the Group Name is set correctly.
- 7 Specify the name and IP address for the Primary Domain Controller, then click Apply.
- 8 Enter **CIFSSTOP** and then **CIFSSTRT** at the server console.

PDC and CIFS on Different Subnets

If the PDC and CIFS servers are on different subnets, you must specify an IP address for the PDC on the CIFS Config property page for the Server object.

Password Changes

Trying to change a password from a Windows 9.x or NT4 client workstation might fail if the default network username and password in the client's cache are not a valid combination on the CIFS server where the password change was attempted.

To avoid this problem, validate the username and password combination in the client's cache on the CIFS server before attempting the password change. You can validate by attempting to access the file system on the CIFS server by browsing to Network Neighborhood.

Configuration File Option Not Supported

In previous releases, the configuration setting for Unicode was displayed and changeable in ConsoleOne. In NetWare 6.5, this option is still displayed in ConsoleOne, but it is enabled by default and cannot be disabled. Checking or unchecking the check box has no effect.

CIFS Server Not Visible in Network Neighborhood

You might occasionally find that your CIFS server is not visible using Network Neighborhood. This can happen if you have a domain that contains only Windows 95/98 and no NT/2000/XP servers or clients. To correct this problem, enter the server name or IP address in Find Computer.

Traditional Volume Access Not Supported

Native File Access for Windows is supported only on NSS volumes. Traditional volumes are not available to Windows users.

Virtual Server Restart Required after Stopping and Restarting CIFS

If you have CIFS configured to run in ACTIVE/ACTIVE mode and you stop and then restart CIFS on a server, you must bring the virtual server resource offline and then online again to cause the CIFS ADD command to be executed from the load script. This is required for the cluster to be aware that CIFS has been restarted.

CIFS Login Fails in Domain Mode with Windows 2003 Server

Windows 2003 Server performs SMB signing by default. Because CIFS does not do SMB signing, pass through authentication requests from a NetWare CIFS server to a Windows 2003 server fails.

To correct this problem, SMB signing must be disabled in the Windows Domain Controller Local Security Policy. This policy is applied in LSDOU order (Local, Site, Domain, then OU containers in hierarchical descending order). Because of this, more than one policy might need to be modified depending on which policies have the policy items enabled, disabled, or undefined (with attention to policy blocking and block override).

The following policies require modification on a default Windows 2003 installation:

- ♦ Local Security Policy (domain controller)
- ♦ Default Domain Policy
- ♦ Default Domain Controllers Policy

To modify a policy on a Windows 2003 Server:

- 1** Click Start > Programs > Administration Tools.
- 2** Click *desired policy* > Local Policies > Security Options.
- 3** Change the policy to the following values:

Microsoft network server: Digitally Sign Communications (always) = Disabled

Network security: LAN Manager Authentication Level = Send LM & NTLM (use NTLMv2 session security if negotiated)

Trustee Rights Required to CIFS Virtual Server

If the CIFS virtual server (cluster-enabled volume) goes into a comatose state when starting, it could indicate that the CIFS ADD command fails to execute in the virtual server load script. This problem is common if servers running CIFS do not have trustee rights to the CIFS virtual server.

Ensure servers running CIFS have trustee rights to the CIFS Virtual Server object.

UNIX/NFS Issues

Installing Native File Access for UNIX after the Migration

After completing a NetWare 5.1 to NetWare 6.5 migration using the Migration Wizard, complete the following steps to ensure that Native File Access for UNIX installs correctly:

- 1** Delete the NFAUUser object.
- 2** Run the schinst utility.

Syntax:

```
schinst -n -w
```

Schinst takes the administrator's FDN and password as input for extending the schema.

3 Run nisinst.

4 Execute nfsstart.

NFS Server

- ♦ Exporting traditional volumes is not supported.
- ♦ If the NetWare server code page is 932, then the file creation from Japanese EUC NFS clients fails for certain characters.
- ♦ At times, the `rm -rf` command fails over NFS version 3 over TCP while executing recursive deletion.
- ♦ Exported paths cannot contain spaces. However, filenames and directories containing spaces can be created and used under the exported path.

Using iManager for Administering NFS Server

- ♦ You cannot administer NFS using iManager if iManager is installed on a different tree.
- ♦ The NFS Server iManager snap-in does not work in the NetWare Remote Manager browser.
- ♦ A disabled path can be edited from the Netscape browser.
- ♦ On the Export options screen, the Browse button for Path is now removed.

Error 9600

NDSILIB might not autoload in certain instances. If this happens, it will return Error 9600. To fix this problem, run NFSSTOP at the server console and then execute the operation again.

If the issue is not resolved, log in to ConsoleOne or NWADMIN and do the following:

- 1** Make a note of all the nodes that share the NFAUUser object in that context.
- 2** Delete the NFAUUser object.
- 3** Run `schinst -n -w` on all the nodes that you made note of in [Step 1](#).

Makenis Issues

Do not use makenis to delete users and groups. Use ConsoleOne instead.

Pkernel Messages

If the pkernel screen displays messages similar to the following after executing `yppush`, ignore them. They do not affect functionality.

Out of memory, cannot create UDP Client handle.

Removing Users or Groups from the NetWare NIS Slave Server

When the NetWare server is made a NIS slave server and users and groups are deleted from the NIS master server, do the following to remove the users and groups from the slave server:

- 1** In the ConsoleOne main menu, right-click the User or Group object.
- 2** Click Properties > Other.
- 3** Under Attributes, select `nisUserGroupDomain` and then select the specific domain.
- 4** Click Delete.

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Novell NetDrive 4.1

WebDAV Support

Novell® NetDrive 4.1 supports secure HTTP (HTTPS) for WebDAV *only* on Windows NT 4/2000 and Windows XP workstations.

Using the NetDrive Client behind a Firewall Regulated by BorderManager

If your Novell NetDrive client is behind a firewall regulated by a BorderManager® server that is configured for FTP proxy and authentication, NetDrive cannot map a network drive via FTP to any servers that reside outside the firewall. To solve this problem, disable the FTP proxy authentication on the BorderManager server.

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Novell NetStorage

DNS Name Required for NetStorage iManager Plug-in

You must use the DNS name of the NetStorage server when accessing the NetStorage iManager plug-in. If you use the IP address of the NetStorage server, you will receive a Service Not Available error.

If the NetStorage server does not have a DNS name, you must install the server using the server IP address as its DNS name.

NetWare 6.5 56-Bit International Versions Must Use iFolder 1.03

Novell® iFolder® 2.1 does not support 56-bit encryption. If you are using 56-bit encryption in an international version of NetWare® 6.5, you must use iFolder 1.03 to enable users to access their iFolder files using NetStorage.

Logging In As a Different User

If you are using Windows 98 and Internet Explorer and, after logging in to NetStorage you intend to log in again as a different user, you must first delete Internet Explorer cookies and log out from Windows 98 or you will not be able to log in again. This is necessary because Windows 98 retains user information and NetStorage cookies are created that are user specific.

When using Windows 2000 and Microsoft® Web Folders, you must enable the Launch Folder Windows in a Separate Process option:

- 1** Double-click My Computer, then click Tools > Folder Options > View.
- 2** Check the Launch Folder Windows in a Separate Process check box.

For all versions of Windows and Internet Explorer, configure Internet Explorer to prompt for username and password:

- 1** Click Tools > Internet Options > Security > Custom Level.
- 2** In the User Authentication Setting section, click Prompt for Username and Password > OK > OK.

Internet Explorer Unable to Open Some Web Folders

If you use Microsoft Web Folders with NetStorage to create a new folder, you might not be able to open that folder using Internet Explorer.

Character Set Issues with Netscape

If you use the Netscape browser to open NetStorage, square boxes will be displayed in place of some characters. To resolve this, click View > Character Set > Unicode (UTF-8) and then click View > Character Set > Set Default Character Set.

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Novell Nsure UDDI Server

Installation

- 1 On the component selection page, select Novell Nsure UDDI Server.

NOTE: The UDDI server files are located at `sys:\uddi`.

- 2 After the installation is complete, verify the UDDI configuration as described in [“Configuration Verification” on page 81](#).

If the configuration fails, execute the following command at the system console to begin the installation:

```
java -cp sys:\etc\UDDIInstall.jar install
```

This executes the Installation wizard.

For more information, see [“Installing UDDI on NetWare”](#) in the *UDDI Administration Guide*.

Post-Installation

Optional:

To allow publishing in an SSL setup, set `EnforceSSLForPublish=yes` in the `configdir\conf\uddi.conf` file, where *configdir* is the directory selected during installation.

To allow inquiries in an SSL setup, use the Allow Authenticated Inquiry over a Non-SSL Channel option (change it to False) and configure your Publish and Inquiry URLs accordingly.

For more information on configuring this option, see [“Using the UDDI Administration Interface”](#) in the *UDDI Administration Guide*.

Configuration Verification

Test the UDDI server configuration by entering the following in a Web browser:

`http://hostname:portnumber/novelluddi/servlet/rpcrouter`

where *hostname* is the hostname or IP address of the server and *portnumber* is its port number. On NetWare, the portnumber is 80 by default.

The following message is displayed on your browser window if the UDDI service is running:

UDDI Server Status

Server Initialized Successfully.

This completes the UDDI server setup. Next, you should create the UDDI roles and tasks in iManager in order to start working with the UDDI administration and user access interface tasks.

Known Issues

- ◆ Do not use the browser's Back and Forward buttons for navigating through the UDDI administration and user access interface. Instead, use the navigation provided within the application.
- ◆ Do not use the Open in New Window option in Internet Explorer or the Open Link in New Window option in Netscape Navigator.
- ◆ If the same user authenticates to the UDDI server from multiple workstations, performing a discard_auth token (logout) on any one of these workstations will log out all the current connections established by that user; the operation that is in progress will not be affected. We recommend that you do not allow using the same user identity from multiple workstations.
- ◆ The UDDI administration and user access interfaces provided through Novell® iManager are recommended for a typical usage of 10 to 20 users accessing the UDDI registry simultaneously. So, at higher loads, you might experience slow responses.
- ◆ The basic look-and-feel of the utility differs from one browser to another, including the following:
 - ◆ Fieldsets (for example, the Inquiry and Publish fieldsets on the Set Rights for UDDI Base Context page in the Access Management)
 - ◆ Tabbed options
 - ◆ Width of the list boxes (combo boxes)
 - ◆ Size of the frames and relative separation
 - ◆ Changes in the GUI appearance within a fieldset

These changes are not displayed (such as changing the label of a control or enabling/disabling a button). However, the functionality remains in tact.

For instance, this happens when you check the Public check box on the Set Rights for Base Context page in the Admin Access Management. The Object Selector should be disabled. Functionally, this disabling occurs but it is not visible to the user.
- ◆ In Netscape Navigator 7.0, only a single object can be selected using the Object Selector icon.
- ◆ In Netscape Navigator 7.0, the online help icon is displayed if you are using iManager 1.5.1 or later.
- ◆ The XLDAP servlet cannot be removed after upgrading the UDDI Services running on exteNd™ Application Server to Novell Nsure™ UDDI Server. You can ignore this, because the memory utilization by the XLDAP servlet is negligible.
- ◆ If you import business services that exceed the specified user quota, an error message is displayed. After you click OK, the Update Business Information page is displayed with the Services tab enabled. But, the information displayed in the lower frame is Names although the functionality remains. Click any of the tabs to view the related information.
- ◆ If you import binding templates that exceed the specified user quota, an error message is displayed. After you click OK, the Update Binding Information page is displayed with the Bindings tab enabled. But, the information displayed in the lower frame is Descriptions although the functionality remains. Click any of the tabs to view the related information.
- ◆ To uninstall the NetWare integrated installation, you must manually delete the novelluddi folder from the Tomcat_home\webapps\ directory. Also, delete the sys:\uddi directory.

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Novell Storage Services

Previous NetWare 5 NSS Volumes Not Automatically Upgraded

Previous NetWare® 5 Novell® Storage Services™ (NSS) volumes are not automatically upgraded during the NetWare 6.5 installation process. After you install NetWare 6.5 and reboot the server, you can upgrade pre-existing NSS volumes to the current NetWare 6.5 NSS volume layout.

Before you upgrade previous NSS volumes, make sure that Novell® eDirectory™ is running and that the Backlink process is complete. For instructions, see “[Upgrading NetWare 5 Volumes Using Volume Copy Upgrade](#) in the *Novell Storage Services Administration Guide for NetWare 6.5*.

This issue does not apply to NSS volumes in clusters. The cluster automatically calls

```
nss /z1ssvolumeupgrade
```

to perform the upgrade.

Must Add Trustee Rights to Sys:login When Upgrading Volume Sys:

You can use the volume conversion utility called Volume Copy Upgrade (VCU) to upgrade a traditional volume sys: to the NSS volume sys:. However, the implied trustee rights do not transfer with this method. After you upgrade volume sys:, you must manually add a public trustee with Read and File Scan rights to the sys:login directory.

Hot Fix Support

Novell Hot Fix™ support has been removed from NetWare 6.5 because it is no longer necessary; storage devices typically provide their own hot fix solutions.

Most NSS Storage Management Functions Moved to iManager and NSSMU

Effective in NetWare 6.5, you can perform most storage management functions only in iManager and the NSS Management Utility (NSSMU). Storage management functions are no longer available in ConsoleOne®. Storage interfaces in ConsoleOne refer you to the browser-based iManager and the console-based NSSMU for NSS Storage objects or to NetWare Remote Manager (NRM) for Novell Traditional File System Storage objects.

Exceptions to this change are the interfaces for setting up the DFS Management Context and Junctions and viewing the NSS Volume Location Database (VLDB) servers. These options are still in ConsoleOne.

This change does not affect Novell Cluster Services™ options in ConsoleOne.

Refreshing an iManager Page

To refresh the page you are viewing in iManager, click the link to that page in the left-hand navigator.

If you click the browser's Refresh button or Back button, the browser returns you to the initial iManager page that is retrieved upon login.

Junction Levels Limited on Windows Systems for DFS

On Windows XP and 2003, the Novell distributed file services (DFS) works only one junction level deep.

On Windows 98, NT 4, and 2000, the DFS junction levels can be as deep as are supported by the length of a Windows path.

The NCP™ Client now supports DFS junctions at multiple levels deep on any Windows operating system.

Specifying VLDB Servers for the DFS Management Context

In NetWare 6.5, you can specify up to two VLDB servers in the DFS Management Context and they must be in the same LAN. Because ConsoleOne does not log in to the VLDB server automatically, your setup might not take effect.

To avoid this problem, connect to the servers before you designate them as VLDB servers. For example, map drives from the servers to your local workstation or server where you are working. Then, simply select the servers to be your VLDB servers as you create the DFS Management Context.

You can also run ConsoleOne directly on the server that you want to make a VLDB server when you are setting up VLDB servers for your DFS Management Context. To add a second server, run ConsoleOne on that server, open the server's property page, then click Add Replica.

Start VLDB Repair from the Server Console after Creating a DFS Management Context

If you are creating a DFS Management Context using ConsoleOne, you must start the VLDB Repair command from the server console immediately after creating the DFS Management Context; do not start it from ConsoleOne. This is particularly important if you have servers and volumes in different containers in the tree because the server you start VLDB Repair on must be a VLDB server.

If started in ConsoleOne, the VLDB Repair logs in to eDirectory as the server that ConsoleOne is running on, and that server might not have sufficient rights to do everything it needs to do. If you attempt to create a new junction on a server in the tree that is not a VLDB server, you might get this error:

The junction, *junctionname*, could not be created because *servername_volume.context* does not contain the DFS attribute.

If started from the server console, VLDB Repair prompts for a username and password and then runs as the user as it walks the tree.

The need for manually starting VLDB Repair will be fixed in a later release when VLDB administration is removed from ConsoleOne and supported in iManager.

Disable Login on a Server before Using Move Volume or Split Volume

The NSS Move Volume and Split Volume commands do not track any changes made to files that might be in use during the Move or Split job. Any such changes are lost.

For example, a file might be changed after the original file is copied to the new volume but before it is deleted from the original volume. Any changes made during that time are lost.

Another example is if the original volume has the attribute set for File-level Snapshot. Because the Move and Split functions make use of the Storage Management Services™ (Novell SMS™) backup and restore utilities, the File-level Snapshot attribute would automatically enable SMS to copy old versions of files from the original volume to the new volume even if they are in use during the transfer. Any of the changes made to the files during that time are lost.

To avoid losing changes made to files during a Move or Split job, keep users and applications from using the original volume while the job is running.

For example, issue the Disable Login command from the console to keep users from logging in to the server, then use NetWare Remote Manager (NRM) to issue a Drop Connections command to kill any active connections.

Alternately, you might issue an advisory to users to request their voluntary cooperation for the duration of the Move or Volume job. Also, make sure to address any active APIs that interact with the volumes.

Volumes Must Have an eDirectory Volume Object to Use DFS

In previous versions of NetWare, DFS allowed you to move or split volumes whether they had a corresponding eDirectory Volume object or not. In NetWare 6.5, volumes must have an eDirectory Volume object to be usable with DFS. For example, if you create a DFS junction manually in ConsoleOne, you specify the destination volume for the data by selecting its eDirectory Volume object.

Typically, whenever you create an NSS volume, NSS creates a corresponding eDirectory object. It would be unusual not to have an eDirectory Volume Object for your volume.

To update the volume's eDirectory Volume object:

- 1** In iManager, click Storage Management > Volumes.
- 2** Select a server.
- 3** Select the volume.
- 4** Click Update eDirectory.

Purge the Source Volume Manually after a Volume Move Initiated in iManager

If you initiate a volume move from iManager, the Move Volume job does not automatically purge the source volume when it is done. To free the space, you must manually delete and purge the source volume after the Move Volume job completes successfully. The Split Volume job does purge the files that it deletes, so no additional action is required for a Split.

If you initiate a volume move or split using commands from the server console, the Move or Split Volume job automatically and immediately purges the files that it deletes.

Viewing Files Skipped in a Move or Split Volume Job

If a Move or Split Volume job reports a Files Skipped status, some files could not be moved because they were open at the time that DFS attempted to copy them.

To view a list of files:

- 1** Retrieve the Operation ID number of the Move or Split Volume job.

1a At the server console, enter

volmn status

NSS displays a list of the Move and Split jobs that are in progress or were initiated or run in the past seven days.

- 1b** Find the Move or Split job of interest and make a note of its Operation ID number.

For example, Move(Vol1) might have an Operation ID number of 104211375.

- 2** To display a list of the files skipped, at the server console, enter

```
volmn list operation ID
```

For example, enter

```
volmn list 104211375
```

Pool Multiple Server Activation Prevention

If enabled, the pool Multiple Server Activation Prevention (MSAP) prevents some accidental activations of a pool on more than one server at a time. It will not catch all multiple activations. You should never purposely attempt to activate a pool on two servers at the same time. MSAP is not meant as a replacement of clustering software that controls shared pools.

In some cases, the MSAP software causes pools to take up to 30 seconds to activate. This delay might occur on the next pool activation after the Server ID or the Cluster ID changes for a given server pool. The Server ID changes if the registry is corrupted. The Cluster ID changes if the Cluster NDS[®] object ID is lost.

If MSAP is enabled, all active ZLSS pools will be read every 14 seconds. If your storage media are not shared between multiple servers such as in a SAN, you can clear the `zpool_feature_msap` bit. You should not clear this bit if your pools are on physically shared storage media.

If a pool can be accessed by older servers not running the Support Pack with the MSAP software, then multiple pool activations can still occur.

MSAP does not protect against partition conflicts for pools. It does not prevent multiple servers from creating a pool in the same partition.

For more information, see “[Enabling Pool Multiple Server Activation Prevention](#) in the *Novell Storage Services Administration Guide for NetWare 6.5*.

Segment Size Limitations

The size of a given storage segment cannot exceed 2 terabytes (TB). If you want to create an 8 TB pool or volume, you must use at least four segments when you create the pool.

The segment size for software RAID 0 and 5 devices is limited to 1 TB.

Software RAID 5 Is Not Supported in the Initial Release of NetWare 6.5

NetWare 6.5 includes infrastructure to support Software RAID 5, but Novell and third-party vendors will not support Software RAID 5 for the initial release of NetWare 6.5. Support for Software RAID 5 is planned to be included in NetWare 6.5 Support Pack 1.

You should not use Software RAID 5 in a production environment until you have applied NetWare 6.5 Support Pack 1. Meanwhile, you can familiarize yourself with the Software RAID 5 feature in a testing environment only.

NetWare 6.5 fully supports Software RAID levels 0 and 1.

Turn OpLocks Off for Btrieve-Based Applications

If you are using Btrieve-based applications on your server, you must turn off opportunistic locking (OpLocks).

To turn OpLocks off at a server, enter the following at the server console:

set Level 2 OpLocks Enabled = off

set Client File Caching Enabled = off

To turn OpLocks off on a workstation:

- 1** Right-click the Novell Client™ icon (the red N) in the system tray.
- 2** Click Novell Client Properties > Advanced Settings.
- 3** From the Parameter Groups list, select File Caching.
- 4** In the Setting field, select Off from the drop-down list.
- 5** Click OK.
- 6** Reboot your workstation.

Imaging NetWare Partitions

NetWare partitions that are restored by some imaging utilities might cause the volumes to not be seen. When imaging NetWare 6.0 and 6.5 partitions, the imaging utility must be aware of the partition segments within NetWare partitions.

The Portlock imaging utility is compliant and will function properly. With other utilities, the partition must be restored to the same starting sector on the disk as it was imaged from; if not, the pools and volumes will not be seen. You can also image the entire disk and restore the entire disk.

Mounting a USB Floppy Disk As a Local FAT Volume

If your server uses a USB floppy drive, NetWare 6.5 does not mount floppies automatically during the server installation. You might need to manually mount a floppy disk to install the NetWare 6.5 license.

Local File Allocation Table (FAT) volumes are available to the server but are not seen by users. By default, NetWare 6.5 does not automatically mount local FAT volumes such as the floppy disk in a USB floppy drive. Use the Local Fat Volume Mount (LFVMount) command to detect and mount any local FAT volumes not recognized by DOS and assign them a local drive letter.

To mount local FAT volumes, enter the following at the system console prompt:

lfvmount

The LFVMount command affects only the current local FAT volumes. For example, you must re-enter this command each time you change a floppy disk in the USB floppy drive.

Use the associated SET parameter (set auto lfvmount=<on | off (default)>) to configure automatic detection. If set to On, NetWare automatically detects and mounts local FAT volumes as you insert the media into the drive and then assigns drive letters to them. If set to Off (default), NetWare does not automatically detect and mount local FAT volumes; you must use the LFVMount command to manually mount them as needed.

To automatically mount local FAT volumes for a server, enter the following at the system console prompt:

set auto lfmount=on

To prevent the automatic mounting of local FAT volumes for a server, enter the following at the system console prompt:

set auto lfmount=off

If entered at the system console, the associated SET parameter remains in effect until you change it or until you reboot the server.

To make the SET parameter persistent through a server reboot, add it to the startup.ncf file:

If no value is set in the startup.ncf file, NetWare does not automatically mount the local FAT volumes. You must use the LFVMount command to manually mount local FAT volumes as needed.

The Local Fat Volumes (lfvolumes) command displays a list of local FAT volumes that are currently mounted and provides detailed information about them.

To list information about local FAT volumes mounted on the server, enter the following at the system console prompt:

lfvolumes

The LFVMount command appears in the console-based help for console commands.

For help with the LFVMount command, enter one of the following at the system console prompt:

- ♦ **help mount**
- ♦ **help lfmount**

Handling of a Corrupted Transaction Tracking System Log File

If a system failure occurs, the NSS Transaction Tracking System™ (TTS™) replays the TTS log file to recover lost application-based transactions as part of the failover recovery.

Before replaying the TTS log to recover lost transactions, TTS checks the integrity of the transaction file blocks in the log. If TTS detects no problems, the replay continues.

If TTS detects a bad block, it does not use the log file. TTS creates a new TTS log file to use as the system continues to operate.

IMPORTANT: Although the system continues to run, data might have been lost.

TTS renames the corrupted TTS log file to indicate the date and time that it detected the problem. For example, it renames

volume:\UXaction.log

to

volume:\XLogyyyyymmddhhmmss.log

Corrupt TTS log files are relatively large, about 10 MB. TTS stores the corrupt TTS log file in the root directory of its transacted volumes. If users report finding TTS log files in the root directory of their volumes, it indicates that a problem occurred and that TTS detected it.

IMPORTANT: If a system failure causes corruption in the TTS log file, please report to Novell Technical ServicesSM the network circumstances that lead to the corruption of the TTS log file. We would like to examine the event to find why the corruption might have occurred.

NSS Read Ahead Maximum Block Count

The NSS Read Ahead maximum block count is 128 blocks.

If the Read Ahead attribute is set for a volume, the NSS file system allows for an adjustable read ahead specified by volume. The default read-ahead block count is 2 blocks (8 KB). Currently, the valid values range from 0 blocks (meaning no read ahead) to 1024 blocks. However, the practical maximum value is 128 blocks. Block counts greater than 128 can starve other system components for memory or buffers, which can result in poor performance or system hangs. As the number of concurrent connections to unique files increases for a volume, you should reduce the volume's read-ahead block count accordingly.

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Novell TCP/IP

Fault Tolerance

- ♦ Fault tolerance is supported on Open Data-Link Interface™ (ODI™) compliant drivers, such as CE100B, IBMFE, PCNTNW, 3C90XC, and N100.
- ♦ Fault tolerance does not work for multicast applications. When the NIC which contains the multicast group address information goes down, the multicast group address information is not transferred to the other members in the group. For example, applications like SLP will not work when the associated NIC goes down.

Per-Packet Load Balancing

- ♦ To maintain communication, the card properties (such as checksum, offloading, and support) should be the same.
- ♦ All cards on the same network should be grouped; otherwise, the packet will also reach an ungrouped member.

Virtual IP

- ♦ Virtual IP currently works only in an environment configured for RIP-based routing.
- ♦ Virtual IP will not work with applications that time out before the Routing Expiration Time Out Interval. Therefore, the applications will not get a chance to switch to the next-best hop for the route. For example, NCP™ and GroupWise® applications will time out before the routing expiration takes place and they will need to re-establish their connections.

Secondary IP Address

When INETCFG/Web-based TCP/IP Configuration transfers TCP/IP-related commands from the autoexec.ncf file, the add secondary ipaddress x.y.z.w command will not be transferred to tcpip.cfg.

Default Routing Configurations

- ♦ IP packet forwarding is disabled. The NetWare® server will work as an end node.
- ♦ RIP is disabled. The server will not be able to learn and send any RIP routes.
- ♦ LAN Static Routing is enabled.

Web-based TCP/IP Configuration

The following configurations are not supported in the Web-based TCP/IP configuration (nirman.nlm) through NetWare Remote Manager (NRM):

- ♦ User-specified protocol (NIC Teaming)
- ♦ BOOTP

- ♦ EGP
- ♦ SNMP

TIP: Click the Configure TCP/IP link in the left pane of the NetWare Remote Manager main page to access the Web-based TCP/IP configuration utility.

NIC Teaming

Currently, only one user-specified protocol is supported.

Configuration through INETCFG

- ♦ If the netinfo.cfg file is corrupted and upon loading INETCFG you get a message asking you to reconfigure, delete the tcpip.cfg file.

After the network configuration of the server is complete, we recommend that you back up the netinfo.cfg, netinfo.chk, and tcpip.cfg files located in sys:\etc. Then, in case of corruption, you can restore from the backed-up configuration.

- ♦ In machines with multiple NICs, when already-in-use IP addresses are selected for binding, an ARP conflict error message for each binding is displayed in the system console screen. The system should automatically trigger unbinding of the IP addresses. If the binding persists, manually delete the bindings and reinitialize the system.

Supernetting

- ♦ After a server is configured as a router (forwarding enabled), it cannot be configured with a supernet mask. Therefore, if a server is configured with a supernet mask, forwarding is disabled.

If the mask is changed to a nonsupernet mask and the system is reinitialized, the INETCFG protocol configuration indicates that forwarding is enabled even though it is not. To re-enable forwarding, you need to make an explicit configuration change in INETCFG.

To verify the status of forwarding, look at the Forwarding tab in TCPCON.

Pragmatic General Multicast (PGM)

PGM is a reliable multicast transport protocol that works on a multicast-enabled network. Therefore, the network from the PGM sender to all the PGM receivers should be multicast enabled. If there are any routers on the path between the sender and the receivers, multicast forwarding must also be enabled on them.

Ipflt.nlm

If more than one board is bound to the same IP address, the filter should be configured for all boards; otherwise, filtering will take place only for the configured member.

Iptrace.nlm

The iptrace.nlm program will not be able to display the information of traces where destination addresses and intermediate hops do not respond to the source.

Routecon.nlm

Currently, the routecon monitor option is not supported.

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Nsure Audit

- ♦ Novell® Advanced Audit Service does not ship with NetWare® 6.5. It has been replaced by Novell Nsure™ Audit.
- ♦ AuditNW must be loaded after any antivirus product; otherwise, the server might appear to be hung and will have to be hard-reset.
- ♦ Directories or files created by Macintosh* computers and stored on a NetWare volume using the Mac* name space that are approximately 450 characters or longer might cause an abend if events are being logged against the file system.
- ♦ By default, no NetWare or file system events are being logged.
- ♦ We recommend that only one Secure Logging Server be installed per system and that other servers be configured to log events with this server. Depending on the number and type of events to be logged throughout the system, a dedicated Secure Logging Server should be considered.

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Nterprise Branch Office Appliance

For issues related to Novell® Nterprise™ Branch Office™, see the [Readme \(http://www.novell.com/documentation/lg/nbo/index.html?page=/documentation/lg/nbo/readme/data/agfitbb.html\)](http://www.novell.com/documentation/lg/nbo/index.html?page=/documentation/lg/nbo/readme/data/agfitbb.html) located with the [Nterprise Branch Office online documentation \(http://www.novell.com/documentation/lg/nbo\)](http://www.novell.com/documentation/lg/nbo).

IMPORTANT: Before installing a central office NetWare® 6.5 server and installing Nterprise Branch Office on appliance hardware, you should familiarize yourself with Nterprise Branch Office and specific requirements for the central office server. See the [Nterprise Branch Office online documentation \(http://www.novell.com/documentation/lg/nbo\)](http://www.novell.com/documentation/lg/nbo).

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NTPv3 RFC 1305

NTPv3 contains the following utilities:

- ♦ NTPDate
- ♦ NTPQ
- ♦ NTPTrace
- ♦ XNTPD
- ♦ XNTPDC

By default, Timesync is loaded with the NetWare[®] 6.5 installation. To make XNTPD load by default, edit the sys:\system\timeserv.ncf file.

Known Issues

- ♦ XNTPD accepts only lowercase letters in the ntp.conf file.
- ♦ You define a configuration file using the -c command. However, NetWare Remote Manager does not understand this user-defined configuration file, and it opens the default ntp.conf file.
- ♦ If you are unable to open the ntp.log file using Edit, it is because your ntp.log was created for the first time. Subsequent loads of XNTPD will not effect this issue.

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OpenSSH on NetWare

Error Reported during Remote Upgrade

If you perform a remote upgrade, OpenSSH will report an error trying to configure the product. To fix the configuration problems, edit `sys:\etc\ssh\sshd_config` and update the default <Your-Context> tag with the admin user's context. You will also need to add users who you want to have rights to administer OpenSSH to the `sshadmn-Administrators` group.

A local (from the GUI on the server) post-install of the OpenSSH product will also correct the configuration issues.

OpenSSH Security Vulnerability Patch Applied to This Release

All versions of the SSH Daemon (SSHD) prior to OpenSSH version 3.7.1 contain buffer management errors. It is unclear as to whether these errors create a security risk. As a precaution, we have applied a patch released by the OpenSSH community to this release (version 3.6.1p1).

For more information about this issue, see <http://www.openssh.com/txt/buffer.adv> (<http://www.openssh.com/txt/buffer.adv>).

User Objects Do Not Have uniqueid Attribute after Upgrade

After upgrading from a NetWare[®] 5.1 server with eDirectory[™] 7.x to a NetWare 6.5 server (which upgrades eDirectory to version 8.7), User objects don't have a `uniqueid` attribute which is used by `sshd` for authentication, so `sshd` falls back to the `cn` attribute. The `cn` attribute, however, is no longer public after the upgrade. Therefore, the admin user must make the `cn` attribute public in ConsoleOne[®] or iManager.

40 Pervasive.SQL

Insufficient Memory Might Cause a CPU Hog Abend

If Btrieve* doesn't have enough memory allocated when it's loaded on the NetWare® server, it could result in a cpu hog abend. The abend information will indicate that nwmkde.nlm abended in GetCacheBuffer.

The default memory requirement is 2 MB. However, Pervasive* recommends *at least* 10 MB (preferably 20 MB).

You can increase the Btrieve memory requirement in the sys:system\bti.cfg file by modifying the CacheSize=2024 parameter.

Pervasive.SQL 2000 Database Licenses

A permanent two-user license is installed during the NetWare 6.5 installation process. If you are upgrading an existing NetWare server, an unlimited license that will expire 90 days after installation is also installed.

The permanent two-user license is intended for use by the NetWare operating system. If you have additional applications using Pervasive.SQL 2000 or Pervasive.SQL 2000i, including the Btrieve interface, you can use the unlimited user count license for 90 days. If you have applications that need access to the NetWare Pervasive.SQL 2000i database engine, you must purchase an appropriate user count license from Pervasive Software before the 90-day evaluation period ends. Allow adequate time before the end of the evaluation period to receive your user count license.

For more information on Pervasive.SQL 2000i and its features, documentation, or information:

- ♦ Internet: [Pervasive Software Web site \(http://www.pervasive.com\)](http://www.pervasive.com)
- ♦ Email: Salesupport@pervasive.com
- ♦ Phone (U.S.): 1-800-287-4383

Phone numbers for all international offices are available from the [Contact Us link \(http://www.pervasive.com/company/contact/index.asp\)](http://www.pervasive.com/company/contact/index.asp) on the Pervasive Software Web site.

Known Issues

In order for Pervasive to update known issue reports between releases, all Known Issues are published in the [Pervasive Knowledge Base \(http://support.pervasive.com/eSupport\)](http://support.pervasive.com/eSupport). Search on Pervasive.SQL 2000 Service Pack 3 known issues.

You can also see a static list of known issues, including links to the associated Knowledge Base articles, at the [Fixed Defects and Known Issues Web page \(http://www.pervasive.com/support/updates/psql2kfixed.asp\)](http://www.pervasive.com/support/updates/psql2kfixed.asp).

Technical Support

For technical support and discussions about Pervasive products, see the [DevTalk forum \(http://www.pervasive.com/devtalk\)](http://www.pervasive.com/devtalk).

To file a support incident, submit an [Electronic Support Incident \(http://www.pervasive.com/support/support_email.asp\)](http://www.pervasive.com/support/support_email.asp).

You can also visit the [Pervasive Support Center \(http://www.pervasive.com/support/supportcenter.asp\)](http://www.pervasive.com/support/supportcenter.asp) for other contact information.

Useful Links

- ◆ [Comprehensive list and details of Pervasive products \(http://www.pervasive.com/offerings\)](http://www.pervasive.com/offerings)
- ◆ [Discussions about Pervasive development issues \(http://www.pervasive.com/devtalk\)](http://www.pervasive.com/devtalk)
- ◆ [Technical papers \(http://www.pervasive.com/support/TechPapers.asp\)](http://www.pervasive.com/support/TechPapers.asp)
- ◆ [Online product manuals \(http://www.pervasive.com/support/technical/online_manuals.asp\)](http://www.pervasive.com/support/technical/online_manuals.asp)
- ◆ [Support programs \(http://www.pervasive.com/support/support_programs.asp\)](http://www.pervasive.com/support/support_programs.asp)
- ◆ [Pervasive Knowledge Base \(http://support.pervasive.com/eSupport\)](http://support.pervasive.com/eSupport)
- ◆ [Updates and patches \(http://www.pervasive.com/support/updates\)](http://www.pervasive.com/support/updates)

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Scripting Products

Scripting Products Included

The following scripting products are included with NetWare® 6.5. Additional Readme information is located on the Novell® Developer Web site:

- ♦ [PHP \(http://developer.novell.com/ndk/readme/php.txt\)](http://developer.novell.com/ndk/readme/php.txt)
- ♦ [Perl for NetWare \(http://developer.novell.com/ndk/readme/perl5.txt\)](http://developer.novell.com/ndk/readme/perl5.txt)
- ♦ [Novell Script for NetWare® \(NSN\) \(http://developer.novell.com/ndk/readme/nscript.txt\)](http://developer.novell.com/ndk/readme/nscript.txt)
- ♦ [Universal Component System \(UCS\) \(http://developer.novell.com/ndk/readme/ucs.txt\)](http://developer.novell.com/ndk/readme/ucs.txt)

Upgrading from NetWare 6.0 to NetWare 6.5

NetBasic* 6.0 is not installed as a part of NetWare 6.5. If you are familiar with NetBasic 6.0 and shell commands, use NSNINIT and NSNSHELL instead.

PHP

- ♦ Some of the open source applications cannot be executed because the open_basedir option is enabled in this release. Do one of the following to execute the open source applications:
 - ♦ Edit the open_basedir entry in the php.ini file located in the sys:\php directory
 - ♦ Disable the open_basedir option

For more information, see the [PHP documentation \(http://developer.novell.com/ndk/doc/php/php__enu/data/ajdnlr0.html\)](http://developer.novell.com/ndk/doc/php/php__enu/data/ajdnlr0.html) on the [Novell Developer Kit Web site \(http://developer.novell.com/ndk\)](http://developer.novell.com/ndk) and the [PHP manual \(http://www.php.net/manual/en\)](http://www.php.net/manual/en).

- ♦ UDP functions are not yet stable and might cause the server to abend.
- ♦ If fsockopen() fails, a memory leak and abend might result.
- ♦ The Mail functionality will not work if the SMTP Server Name is specified instead of the IP address for the SMTP variable under the [mail function] section in php.ini file.
- ♦ When an infinite or a recursive script is run from one browser, running even a simple script from another browser simultaneously might abend the server.
- ♦ Stopping an infinite script by unloading Apache at the server console might cause the server to hang or abend.
- ♦ Sorting using string indexes might not work properly.
- ♦ The strtotime() function might not work properly.
- ♦ For the system() and exec() functions, we recommend that you use only single-quoted strings with any combination of slashes to separate directories. For example:

`system('sys:\system\rconag6.nlm');` or `system('sys:\\system\\rconag6.nlm');`

If double-quoted strings need to be used, then use double slashes. For example:

```
system("sys:\\system\\rconag6.nlm");
```

If double-quoted strings are used with single slashes and if the NLM™ name starts with the letter r, t, or n—for example, `system("sys:\system\rconag6.nlm");`—then the NLM will not load. This is because the letters will be considered as `\r` or `\t` or `\n`.

Perl for NetWare

- ◆ The character encoding schemes of Unicode, except utf-8, are not supported.
- ◆ `Encode::Guess` is not supported
- ◆ Failure of UCX methods will be indicated by an unknown error. The error description given by the UCX call is currently not available for the Perl script.
- ◆ If a script has just use Perl2UCS or require Perl2UCS and no object instantiation through `Perl2UCS->new(...)`, then the script will abend.
- ◆ Scripts that contain an infinite loop can be terminated by Ctrl+Z, but not Ctrl+C. When Ctrl+Z is pressed, it breaks the loop and expects any key to be pressed (which will be indicated on the Perl output screen) before the Perl output screen can be exited.
- ◆ Press Ctrl+z after pressing Enter to execute the next command in the Perl debugger.
- ◆ Scripts that use the Thread and Threads modules might not work as expected.
- ◆ The truncate built-in procedure does not function reliably.
- ◆ The readlink built-in procedure always returns an undefined value.

According to Perl's definition of the function, this is the correct behavior on a system such as NetWare that does not support symbolic links.

- ◆ The Fork method is not yet implemented on NetWare.
- ◆ The Perl extension to access components through UCS was named UCSExt in Perl 5.003. With Perl 5.6 and later, it is renamed as Perl2UCS. So, in order for the components to work, change UCSExt to Perl2UCS.
- ◆ We recommend that you use the `perl system("nlmname")` without the load prefix to load an NLM. However this NLM load method does not update the `$?` variable.
- ◆ The SYN_TIME NDS attribute returns a string value, but Perl sends double value while setting such attributes representing seconds since 1970.
- ◆ For NetWare 6 and later, executing command line options causes output to be displayed on the logger screen.
- ◆ Setting Alias to a directory other than `sys:/perl/web` might result in nonexecution of scripts. We recommend that you use the default alias directory represented in the `mod_perl` configuration file (`mod_perl.conf`).

Novell Script for NetWare

The date data type for the MySQL Parameter object is not supported in this release.

Universal Component System

- ◆ NSN and Perl scripts using UCS2UCX and UCS2 Perl extensions will not get executed from the server console. These scripts can be executed from the browser.
- ◆ **UCS2Java (Java Provider)**

- ♦ In UCS2Java provider, complex data types like Date and Array are not fully supported.
- ♦ When the script executes, the control will go to the Java GUI screen if the DISPLAY environment variable is set to the default value (127.0.0.1:0). For the control to go to the Console screen, set the value to 127.0.0.1:1 by entering the following command at the console:

ENVSET DISPLAY=127.0.0.1:1

- ♦ AWT-based JavaBeans* might cause the script to hang while exiting. This is due to a problem in JNI, which does not allow the VM to unload if threads are still running.
- ♦ Final variables in classes (equivalent to constants) are not currently supported.
- ♦ Java objects cannot be instantiated using constructors with parameters. Only the constructor with no parameters will be called.

- ♦ **UCS2RMT/UCS2WIN (Remote ActiveX Provider)**

If some ActiveX Controls are not compliant to the standard, it might cause some problems.

- ♦ **Java2UCS (Java Extensions)**

Due to recently incorporated security features in many of the UCX components, many of them will not be fully usable from Java programs using Java2UCS. A solution will be available in the near future.

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Server Operating System

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Storage Management Services (SMS)

Windows Target Service Agent and NWBACK32 Support

We have discontinued support for the file system Target Service Agent components for Windows and NWBACK32.

TSAFS Module

The file system Target Service Agent in NetWare® 6.5 (TSAFS) is redesigned to scale with optimized hardware configurations for better performance. It is compatible with all the existing backup engines and provides tunable parameters to fine-tune performance.

TSAFS Issues

- ♦ During a restore of NFS* hardlinks to legacy volumes, the data and the metadata of the first link are restored. Other hardlinks currently are not created. This is true for NSS file system also as it does not support hardlinks.
- ♦ When TSAFS is unable to restore the name in a particular name space, an appropriate message will be logged. In this case, the file system automatically generates the name in that name space. This name might be different from the one that was backed up, if the name in that name space was modified specifically after it was created.

For example, if the TSAFS is not able to set the MACNameSpace for a particular dataset, the following message is logged:

```
Unable to set the data set name in MACNameSpace for sys:perl/  
webdemo/perldocs directory. Restore will continue processing the  
data set name in other name spaces.
```

Other Issues

- ♦ During restore, the file system resolves name conflicts in the DOS name space and generates DOS names for files and directories. As a result, the DOS name of the restored file might not be the same as the one that was backed up.

For example, a file called filename1.htm with the DOS name filena~1.htm might be restored as filena~2.htm.
- ♦ If you select a single file for backup, you cannot use SBCON to rename it during a restore.
- ♦ Discovery through Novell eDirectory™ (NDS®) is no longer supported in SMDR. Discovery through SLP and SAP is supported.

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Third-Party Adapters, Drivers, and Applications

Hewlett Packard SmartStart

SmartStart* versions earlier than version 7.00 are not supported in the deployment of NetWare® 6.5. Updated driver, Health, and Management agents will be available in the ProLiant* Support Pack (PSP) for NetWare version 6.41 or later, which is available on the Hewlett Packard* Web site.

If versions earlier than SmartStart 7.00 or PSP 6.41 are used, ensure that all of the Health and Management agent modules have been removed from the c:\nwupdate subdirectory prior to restarting the server and ensure that all of the health and agent load lines have been removed from the autoexec.ncf file.

For updates to SmartStart and the ProLiant Support Pack, check with your Hewlett Packard representative or the Hewlett Packard Web site.

Symantec Norton Anti-Virus v8

Symantec* Norton Anti-Virus* v8 is not supported on NetWare 6.5. Contact your Symantec Sales Representative to purchase the upgrade (v8.1) in order to continue to run Symantec NAV on NetWare 6.5. For detailed information, access the [Novell KnowledgeBase \(http://support.novell.com/search\)](http://support.novell.com/search) and enter TID #10085603.

SMS Compatibility with Third-Party Backup Software

The Novell® SMS™ components in NetWare 6.5 were tested with the following:

- ◆ ARCserve* 9.0 for NetWare
- ◆ VERITAS* Backup Exec for NetWare version 9.0
- ◆ VERITAS NetBackup DataCenter 4.5 GA
- ◆ Syncsort Backup Express version 2.1.5c

CPQSHD.CDM Driver

If servers running cpqshd.cdm experience any drive deactivation issues, it is possibly caused by the cpqshd.cdm. We recommend that you check with your Hewlett Packard representative or the Hewlett Packard Web site for timely updates to this driver.

QLogic QLA2x00 HAM Driver

For detailed information on the QLogic* QLA2x00 HAM Driver for NetWare 4, 5, 6, access the [Novell KnowledgeBase \(http://support.novell.com/search\)](http://support.novell.com/search) and enter TID #10085142.

ISA Adapters Are Not Supported

For performance and scalability reasons, all ISA adapter drivers were removed with the NetWare 6.0 release. There is a possibility that a family driver might support adapters which run on more

than one bus type (PCI and ISA). In this case, any ISA adapter would be considered a noncertified driver and would not be supported by Novell.

Promise Adapter Support

The drivers that support the Promise* FastTrak S150 TX2plus and SATA150 TX2plus cards do not support CD-ROM drives.

HighPoint Adapter Support

NetWare does not currently support HighPoint adapter cards or integrated controller chipsets.

Software RAID 5 Is Not Supported in the Initial Release of NetWare 6.5

NetWare 6.5 includes infrastructure to support Software RAID 5, but Novell and third-party vendors aren't supporting Software RAID 5 for the initial release of NetWare 6.5. Support for Software RAID 5 is planned to be included in NetWare 6.5 Support Pack 1.

You should not use Software RAID 5 in a production environment until you have applied NetWare 6.5 Support Pack 1. Meanwhile, you can familiarize yourself with the Software RAID 5 feature in a testing environment only.

NetWare 6.5 fully supports Software RAID levels 0 and 1.

SCSIHD.CDM Command Line Options

Scsihd.cdm now has command line options that can customize the behavior of the driver. The following is the syntax:

load scsihd <</>option<=value>>

Option	Explanation
?	Displays the help screen. Can be used only when the driver is not loaded (the loader cannot load it if it is already loaded). When this option is used, the help screen is displayed on the console screen in NetWare 4 and NetWare 5 and on the logger screen in NetWare 6, and the driver load fails.
AEN	Causes SCSIHD to issue Asynchronous Event Notification HACBs (AENs). This, in turn, causes the HAMS that can do so (such as fibre channel) to report the loss of a hard disk drive or the discovery of a new one even without active IO.
DEBUG	Causes SCSIHD to output extra messages to the console screen (NetWare 4 and 5) or logger screen (NetWare 6).
EXCLUDE= <i>value</i>	Causes SCSIHD to not support a particular driver model. The model name specified in this option is compared with the Product ID field in the SCSI Inquiry data. The model name is case sensitive, and partial model names are acceptable as long as the truncation is not on the left. Replace <i>value</i> with the name of a hard drive model that you do not want SCSIHD to support. Maximum length of model name: 14 (decimal) Default: Do not exclude anything

Option	Explanation
HELP	Same as ?.
REQPOOL= <i>value</i>	Causes SCSIHD to create a pool of buffers that can be used in addition to the one maintained by NWPA to create IO requests. In NetWare 4, performance is enhanced if the driver maintains its own buffer pool for requests. In NetWare 5 and NetWare 6, performance is faster if the driver uses NWPA's request pool—unless NWPA's request pool frequently becomes depleted, in which case it is better to specify REQPOOL and have the driver maintain the pool. Overuse of this option unnecessarily uses up memory. This option should be used only by those who have a highly technical knowledge of NetWare. Replace <i>value</i> with the number of buffers that SCSIHD should maintain in its pool before it tries to allocate new buffers from the operating system. Range: 1 to 99,999 (decimal) Default: 0
RETRIES = <i>value</i>	When an IO error occurs that is caused by hardware failure, SCSIHD tries to jumpstart the device back to life with a combination of Test Unit Ready and Start Device SCSI commands. If successful, SCSIHD retries the original request that failed; otherwise, the disk drive is deactivated to protect the data on it from corruption. Replace <i>value</i> with the number of retries that SCSIHD should attempt without success before it deactivates the drive. Range: 1 to 999 (decimal) Default: 3
RETRYDELAY= <i>value</i>	Between retries of the Test Unit Ready and Start Device SCSI command combination, SCSIHD delays for the number of seconds specified by this option. If recovery of the failed device is not successful, the RETRYDELAY value multiplied by the RETRIES value determines the amount of time that a device is deactivated after the hardware error is reported. This time amount could be distorted by the HAM driver doing its own retries. Replace <i>value</i> with the number of seconds SCSIHD should delay. Range: 1 to 999 (decimal) Default: 10

IDEATA.HAM, IDEHD.CDM, and IDECD.CDM Command Line Options

Ideata.ham, idehd.cdm, and idecd.cdm now have command line options that can modify the behavior of the driver or display certain kinds of information about the driver or storage interface. In each case where information is to be displayed, the driver will display the information on the Server Console screen in NetWare 4 and NetWare 5 and on the Logger Screen in NetWare 6. Enter the following at the server console prompt to display a list of available options:

load ideata /?

load idehd /?

load idecd /?

Option	Explanation
/?	Displays the help screen, whether or not the driver is loaded. This option can be used in conjunction with other options to set those options, if the driver has already been loaded. For example, loading with "load ideata /? /nodma" after all instances of the driver have already been loaded will cause the driver to display the help screen and to disable DMA beginning with the next I/O transaction.
/break or /b	Causes the driver to break into the debugger immediately after loading (ideata.ham only). This option is available during installation.
/debug or /d	Displays various errors as they occur. Also changes the numeric form of the verbose actions (detailed under /verbose) into text that is not listed here, but is detailed in TID #10085776 on the Novell KnowledgeBase (http://support.novell.com/search). Use /debug- or /d- to disable this option. Default: Disabled
/global or /g	Keeps an internal list of the last 64 driver actions. This list is stored in the global variable IDEATA_History in four-byte sections as BBDDHHXX, where BB is the registered bus number, DD is the registered device number, HH is the upper byte of the lowest word of the HACB (storage request) address, and XX is the action number, described in TID #10085776 on the Novell KnowledgeBase (http://support.novell.com/search). From within the NetWare Internal Debugger, these actions can be displayed by entering "dds IDEATA_History" at the debugger command line, but only if this option is first invoked. Use /global- or /g- to disable this option. Default: Disabled
/history or /h	Keeps an internal list of the last 32 driver actions on the particular request. This list is stored in each HACB (storage request) in the HAM Space area beginning at offset 0x14 (offset 0x78 of the SuperHACB). Each byte in this list represents a driver action, described in TID #10085776 on the Novell KnowledgeBase (http://support.novell.com/search). Use /history- or /h- to disable this option. Default: Enabled
/info or /i	Displays certain or various technical information about the driver and storage interface, such as disk drives, device parameters, PCI Configuration information, and driver settings. Use /info- or /i- to disable this option. Default: Disabled

Option	Explanation
/noaen	By default, the driver will issue or accept AEN (asynchronous event notification) requests and queue them until the specified event occurs. Using this option disables the use of AEN requests. Executing the /noaen option after the driver is loaded will have no effect on AEN requests that might have been queued up to that point. Use /noaen- to re-enable support for AEN requests. Default: Disabled (AEN requests are issued or accepted)
/nodma	By default, the ideata.ham driver will check the IDE hardware for DMA compatibility and execute DMA commands if they are supported. Using this option (ideata.ham only) will disable all support for DMA transactions and cause all device communications to be done using PIO (programmed I/O). IMPORTANT: Using this option might cause significant performance degradation. Use /nodma- to re-enable support for DMA commands. This option is available during installation. Default: Disabled (DMA will be attempted)
/noint	By default, the Ideata.ham driver performs I/O with the CPU interrupt flag in the state unchanged from when NWPA called the driver to perform the I/O, normally with interrupts enabled. Using this option (ideata.ham only) disables interrupts during the entire I/O processing cycle. IMPORTANT: Using this option might cause significant performance degradation. Use /noint- to re-enable support for request handling with interrupts enabled. Default: Disabled (interrupts are not purposely disabled during the span of request processing)
/nomp	By default, the driver accepts requests from multiple processors. Using this option disables the driver's ability to do so and causes all requests to originate from a single processor. Use /nomp- to re-enable the acceptance of requests from multiple processors. This option is available during installation. Default: Disabled (requests from multiple processors are accepted)
/nonative	By default, the ideata.ham driver attempts to switch the IDE controller to Native PCI Mode (as opposed to Compatibility or Legacy ISA Mode) if the controller indicates it supports the mode switch. Using this option disables the driver's ability to switch to Native Mode. For some types of controllers (such as RAID and Mass Storage) this switch has no effect because those controllers <i>must</i> run in Native Mode. The /nonative- option is accepted, but it has little effect after the driver is loaded because the action of switching to Native Mode takes place only once, just after the driver loads. Default: Disabled (the driver attempts to switch to Native Mode)

Option	Explanation
/noping	By default, the idecd.cdm driver accepts requests to check for media change. Using this option (idecd.cdm only) causes the driver to ignore requests to check for media change. One implication of this option is that the operating system is not notified if a new platter is inserted into its CD-ROM drive. Use /noping- to re-enable the acceptance of requests that check for media change. Default: Disabled (the driver accepts requests to check for media change)
/safe or /s	Incorporates the /nodma, /noint, /nomp, /noaen, /global, /nonative, and /history options into a single option. Using this option (ideata.ham only) causes the driver to execute requests in a manner that will help the user determine the cause of any problems. IMPORTANT: Using this option might cause significant performance degradation. Using /safe- or /s- has no effect. Default: Disabled
/verbose or /v	Displays each action for this driver. If this option is used with the /debug or /d option, the actions are displayed in text form; otherwise, they are displayed in numeric form. These these numbers are detailed in TID #10085776 on the Novell KnowledgeBase (http://support.novell.com/search). Use /verbose- or /v- to disable this option. Default: Disabled

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Time Synchronization (Timesync.nlm)

By default, Timesync is loaded during the NetWare® installation. To make XNTPD load by default, edit the sys:\system\timeserv.ncf file.

Known Issues and Limitations

- ♦ Timesync in a forced scenario might not work in some setups.

To resolve this:

- ♦ Set Timesync Configured Sources = ON
- ♦ Specify the IP address, DNS name, or file server name of the time source in the Timesync Time Sources parameter.
- ♦ The Monitor screen hangs for a minute if an invalid IP address is given as the time source and the RESET flag is pressed.
- ♦ If you try to install a NetWare 6.5 server as a secondary time server (with default configuration) into a NetWare 4.x tree, time synchronization will fail on the NetWare 6.5 server.

To resolve this:

- ♦ Give the file server the name of NetWare 4 server in Timesync Time Sources without:123
- ♦ Set Timesync Configured Sources = ON

Changes in Timesync Default Configuration for Secondary Servers

When you add a second NetWare 6.5 server to a tree, the default Timesync configuration is as follows:

Timesync Configured Sources = ON

Timesync Time Sources = *IP address of the master replica of the tree*:123

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Tomcat Servlet Container on NetWare

Debug Mode Is Now Available

Debug mode is now available on Tomcat. Enter **tc4jpda** at the system console to start Tomcat in Java Platform Debugging Architecture (JPDA) mode, which uses port 9070 for debugging. You can use any JPDA-enabled Java debugger to debug Tomcat operations.

Broken Links in the Tomcat Web Application Manager

In the Tomcat Web application manager utility (http://domain_name/tomcat/htmlmanager/html/), some hypertext links to various Web applications might not work. This is because while the manager utility can identify the names of each installed application, it has no method for discovering the exact paths (including port numbers) to all of the applications on your server. In addition, Apache requires a trailing forward slash (/) at the end of its URL, which the manager utility does not append by default.

In most cases, this issue can be resolved by adding a forward slash (/) at the end of the URL. For example, if you clicked the /tomcat/manager link, the referenced URL might be

<https://tycoon.provo.novell.com/tomcat/manager>

Because this URL is missing a required trailing forwards slash, the browser returns an Object Not Found error message. You could then append a forward slash to the end of the URL to access the application:

<https://tycoon.provo.novell.com/tomcat/manager/>

If the trailing slash does not fix the issue, you can access the application some other way, such as through the NetWare® 6.5 Welcome Web site, or through Virtual Office if you have installed it. For more information about available administration utilities, see the *NetWare 6.5 Administration Overview*.

Server Certificate Issues

Tomcat sometimes fails to start if there are problems with the server certificate.

If the server certificate has changed since the time of installation, you might need to export the SSL CertificateIP object to sys:/public/RootCert.der using ConsoleOne® and then execute the following command at the system console:

```
keytool -import -v -noprompt -trustcacerts -file sys:/public/RootCert.der -keystore sys:/adminsrv/conf/.keystore -storepass changeit
```

Tomcat Documentation

Refer to the *Tomcat Administration Guide for NetWare 6.5* for information about using Tomcat on NetWare 6.5. For the official Tomcat documentation that is created and maintained by the Apache

Foundation's Jakarta Project, refer to the [Tomcat 4.x documentation Web page \(http://jakarta.apache.org/tomcat/tomcat-4.0-doc/index.html\)](http://jakarta.apache.org/tomcat/tomcat-4.0-doc/index.html).

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Virtual Office

E-Mail Attachment Might Not Appear

Attachments might not function when the eMail service is configured to use IMAP pointed at a Groupwise[®] IMAP provider.

Simultaneous Logout With iChain

In order for Virtual Office to simultaneously logout of iChain, the iChain accelerator must have the "Forward authentication information to web server" option enabled or be using an LDAP profile where "Allow authentication through HTTP authorization" and "Use basic/proxy authentication" are enabled, or OLAC configured to inject user credentials into the Authorization header.

eGuide Authentication Fails

The eGuide Service will not authenticate against a remote server over SSL. The Virtual Office home page displays an Error Message, "Error: Authentication failed: improper configuration. Please contact your administrator." Also, the Advanced Search and link button ask for credentials.

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WAN Connectivity

Modem autodetection is currently not supported.

